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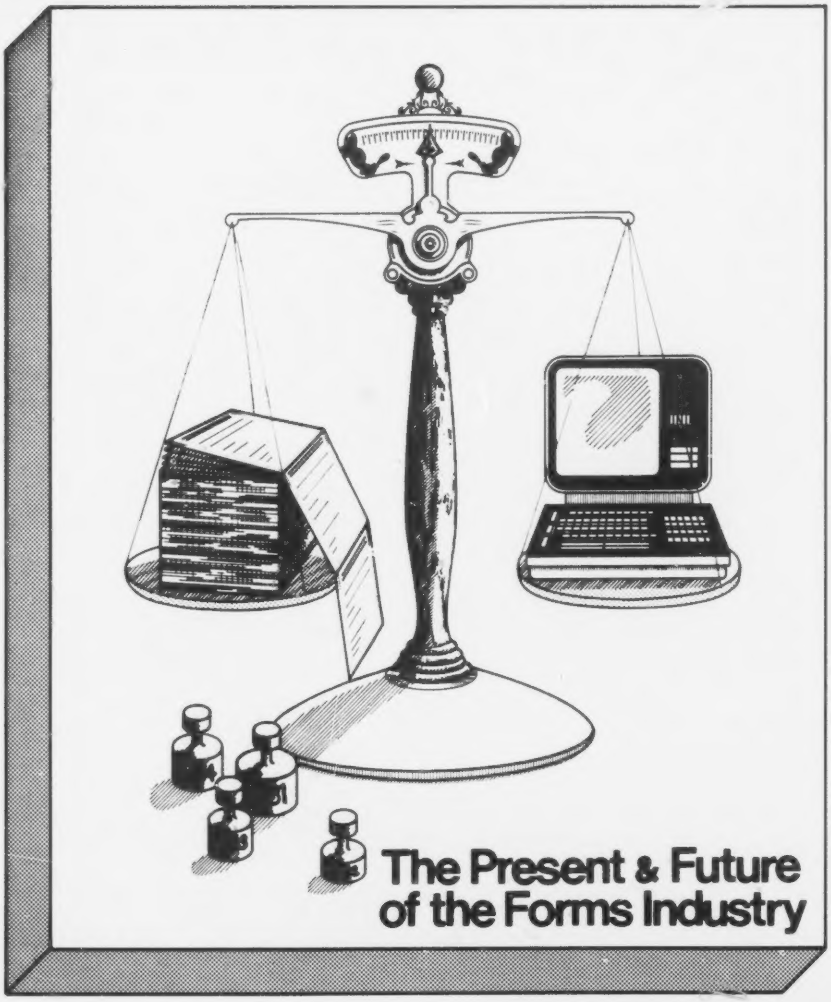
International Business Forms Industries, Inc.

PERSPECTIVE

1981



The Present & Future
of the Forms Industry

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PERSPECTIVE 1981

This is the 1981 edition of an annual publication prepared at the direction of the IBFI Economic Research Committee for the benefit of the industry and its customers. Each edition contains a detailed review of the previous year's results and a five-year demand forecast. In addition, the results of any new research undertaken by the staff during the preceding twelve months are presented in these pages.

The author is responsible for all of the estimates and opinions in this volume. All charts and graphs are the work of the author. Every effort has been made to ensure accuracy but it of course cannot be guaranteed.

Each year many people, both members and non-members and both inside and outside the industry provide data and opinions that help make this publication the best informed statement on the present and future of the forms industry. I would like to mention all of them but time and space preclude it. I would, however, like to give special thanks to Phil Bondi of the Standard Register Company, Dick Toth of Pioneer Business Forms, and Betsy Billings of the IBFI staff.

Norman McLeod

IMPLEMENTATION BY THE IBFI STAFF

Norman McLeod	Director, Economic and Market Research
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International Business Forms Industries, Inc.

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[1] Some of the tables and graphs in the Executive Summary are taken from other sections in the text. This material is listed only once. In this list, such duplicates are placed in the section to which they most properly belong.

EXECUTIVE SUMMARY

1980 was in many ways a disappointing though far from disastrous year for the forms industry. Real growth was negligible, although inflationary pressures drove the current-dollar value of industry sales at shipment value to well over $4 billion. (Calculating forms sales at retail value by adding the mark-up that is put onto the price of a distributor sale would add about 10% to this sum). Some products performed substantially below the rather gloomy industry average with salesbooks, manifold books, pegboard systems and some types of unit set posting actual declines in unit volume shipped. Custom continuous products performed approximately at the industry average while stock continuous products continued to perform well above that average.

Furthermore, what growth there was occurred largely in the first quarter of the year. Much of that "growth" actually represented the working-off of backlogs from 1979 and there was considerable erosion of backlogs during the year. Adjustment for such factors would have made the 1980 picture even worse. The recession, meanwhile, has lasted longer than hoped, though it has not been especially severe.

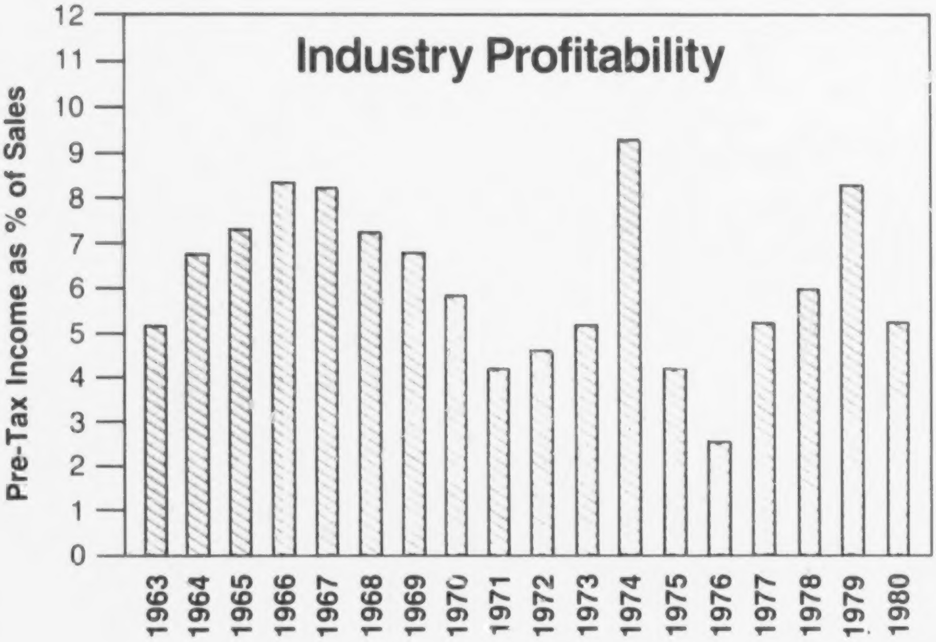
PERCENT CHANGE BY PRODUCT

(All Dollar Figures are Millions of Current Dollars)

	Continuous Custom:	Continuous Stock:	Unit Sets:	Salesbooks:	Total:
1979	1,466.9	891.4	1,248.7	154.2	3,761.2
1980	1,657.9	1,031.7	1,323.1	174.1	4,186.8
$ Gain	191.0	140.3	74.4	19.9	425.6
% Gain	13.0%	15.7%	6.0%	12.9%	11.3%
$ Price Gain	170.5	103.6	100.6	21.6	396.3
$ Real Gain	20.5	36.7	- (26.2)	- (1.7)	29.3
% Real Gain	1.4%	4.1%	- (2.1)%	- (1.1)%	0.8%

SOURCE: IBFI

Regrettably, profits have been affected even more than sales during this period. There are several reasons for this trend. The most obvious one, of course, is the discounting that is hand in glove with any soft market. Furthermore, this discounting comes at a time when the cost of labor, raw materials and money is continuing to rise. These factors inevitably mean a less profitable operating climate, especially when combined with the higher cost of overhead per job that results from the lower capacity operating rates and in many cases the less favorable job mixes that are a part of any recession.

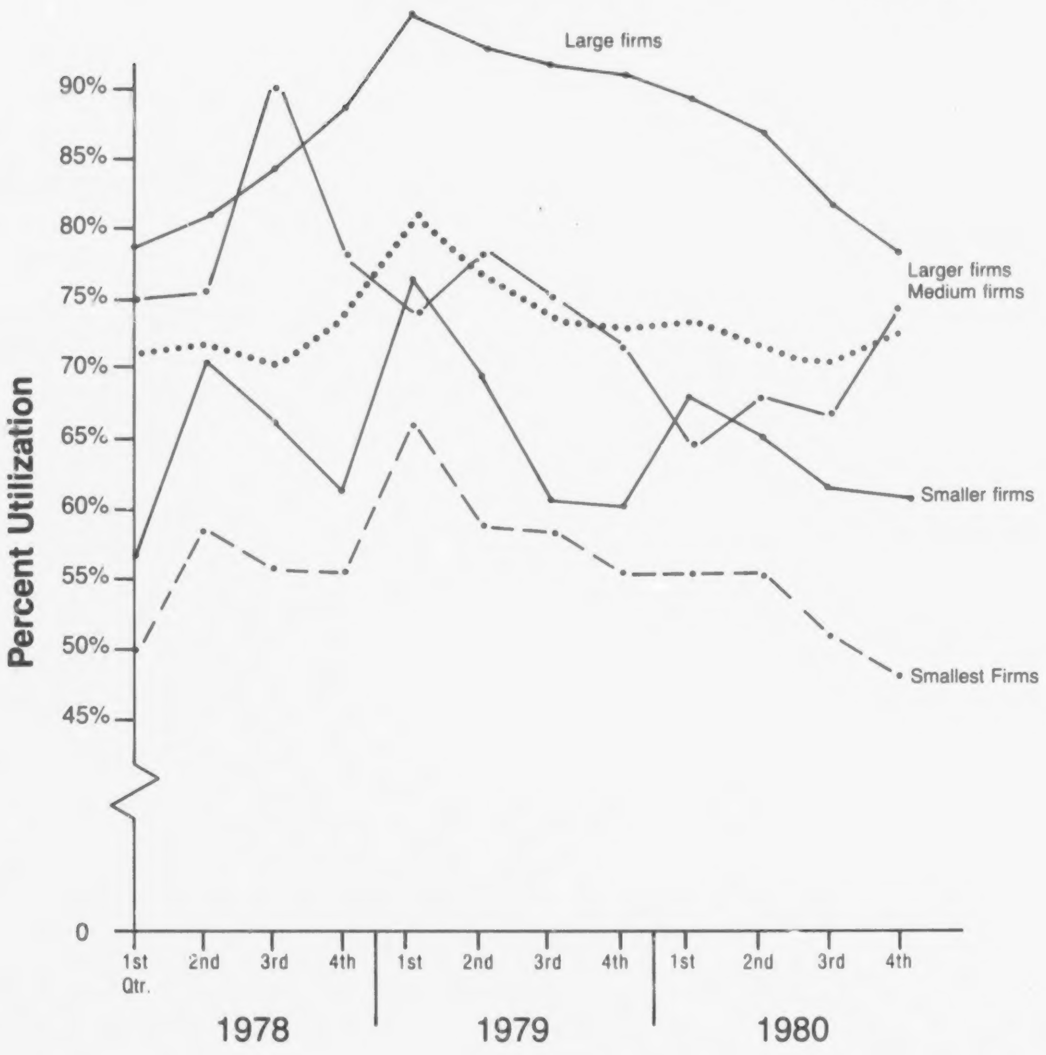


SOURCE: IBFI

These aggregates hide the disproportionate burden that most recessions place upon the smaller firms in our industry. While the larger forms manufacturers have the financial cushion to be able to pass a larger portion of their increased production costs on to the final consumer and thus protect their margins at the expense of some market share, the smaller firms tend to develop bad cases of "hungry press", a disease which is to this industry as the common cold is to mankind - rarely fatal but often debilitating, and occurring with an unfortunate regularity.

MEDIAN QUARTERLY CAPACITY UTILIZATION

(Standardized at 100% = 120 Press Hours)



Source: IBFI

This graph demonstrates the steady decline in capacity utilization which has resulted from heavy investment in new equipment and a softer market.

As usual, many of these profitability problems can be laid at the door of our industry's old hobgoblin, excess capacity. Although shipments stayed surprisingly stable, the industry was absorbing a significant number of new presses. Most of this equipment had been ordered in 1979 and unfortunately came on stream at a time when the market was much softer and interest rates much higher. In fact, a fair number of orders are reportedly cancelled and there was above-average activity in the used-equipment market as some firms which had taken delivery of new equipment either could not afford the carrying charges while building up the needed new business or alternatively decided to retire older equipment sooner than originally planned.

Once again, the aggregates need some interpretation. As the trends toward more one-part, less custom and smaller average order sizes continue, some types of press are being operated flat-out while others are becoming obsolete before their time.

There is however, little reason for gloom as long as we are fair with ourselves. First and foremost, the industry's performance was not at all bad for a recession year. It weathered the recession much better than many other sectors of the economy and outperformed a wide variety of other manufacturing fields. Sales remained stable even if they were no cause for celebration and profits were at or near the deflated average for the decade of the Seventies. In this connection, it is important to remember that 1979 was an outstanding year for the forms industry. That fact can have the psychological effect of making 1980 seem worse than it really was.

p 21

1981 FORECAST BY PRODUCT AND QUARTER

(1980 Dollars)

All Forecast Data At Shipment Values

	1st	2nd	3rd	4th	TOTAL	Percent Change
Continuous Custom	406.3	414.2	421.0	455.5	1,697.0	2.4 %
Continuous Stock	270.1	268.0	260.9	294.6	1,093.6	6.0 %
Unit Sets	324.0	318.5	328.8	358.7	1,330.0	0.5 %
Salesbooks, Other	43.0	43.2	42.8	43.0	172.0	-(1.2) %
TOTAL	1,043.4	1,043.9	1,053.5	1,151.8	4,292.6	2.5 %

1982 FORECAST BY PRODUCT

p.[illegible]

	1980 Dollars	Percent Change
Continuous Custom	1,866.7	10.0%
Continuous Stock	1,216.9	11.3%
Unit Sets	1,441.7	8.4%
Salesbooks, Other	175.0	1.7%
TOTAL	4,700.4	9.5%

Millions of 1980 Dollars

With Percentage Change Over Previous Year

	1983	1984	1985
Continuous Custom	1,998.3	2,113.8	2,127.6
Continuous Stock	1,332.3	1,444.8	1,496.9
Unit Sets	1,540.0	1,638.3	1,706.8
Salesbooks, Other	177.6	179.4	179.4
TOTAL	5,048.2/7.4%	5,376.3/6.5%	5,510.7/2.5%

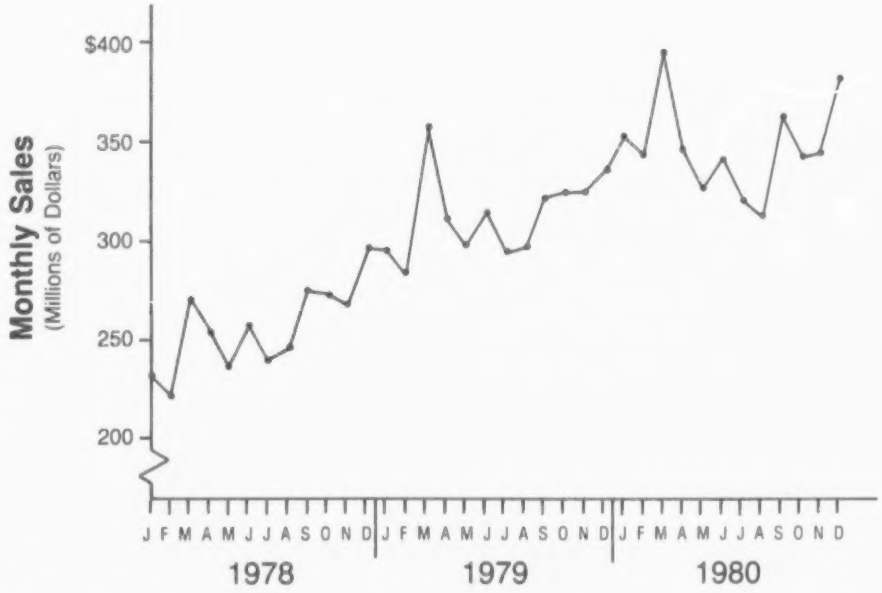
Secondly, there is increasing evidence that the current recession is winding down. My 1980 forecast assumed that Reagan would attempt to balance the budget, would retreat from his election-time tax-cut pledges, and would therefore allow interest rates to drift downward. Instead, he is going ahead with his tax cuts. These cuts more than offset his spending curbs, and the result is a continuing projected deficit. He is, therefore, using the rate of interest and the growth - or more accurately the contraction - of the money supply as his main weapon against inflation. This policy has delayed the upturn a bit but it is clearly on the way. Therefore, expect mild improvement in sales during the third quarter and a sharper upturn in the fourth quarter. On a still more positive note, I expect 1982 to be a very strong year for both the economy and the forms industry. Profitability during the current year, however, is likely to be even weaker than during 1980. This is a typical pattern for the industry; the first year of a recession has a partly delayed impact on profits, while the first year of the following upturn also takes some nine to twelve months before it is really apparent on the bottom line.

II. 1980 SALES RESULTS

1980 was in many respects as confused a year for the forms industry as for the economy as a whole. The good news is that the industry managed, albeit barely, to achieve real growth over 1979. With a current dollar sales gain of some 11.3%, real growth as measured by tonnage of paper converted was approximately 7/10 of 1%. These results, while hardly a cause for celebration, were significantly superior to the performance of the overall economy. Also, however small those growth percentages may seem, it must be emphasized that they are being compared with one of the strongest years in the industry's history.

The bad news is that in many ways the forms market was somewhat weaker during 1980 than these figures would lead one to believe. What growth there was occurred almost entirely in January, February, and December. Much of the strength in the first two months was due to the shipment of orders originally booked well back into 1979, while to be candid, much of the strength in December shipments was a year-end phenomenon common in weak years. In other words, if incoming orders, outgoing shipments, price gains, tonnage converted, and backlog levels could be analyzed in the detail they deserve, and the results correlated, the current-dollar sales gain would have dropped to about 9.7% and the tonnage-converted real gain would have been eliminated (although not pushed into a negative position).

MONTHLY FORMS SALES
At Shipment Values, 1978-1980
(Current Dollars)



Source: IBFI

Here we see that the strong upward trend of 1978 and 1979 was sharply arrested in the second quarter of 1980.

1980 SALES BY PRODUCT AND QUARTER

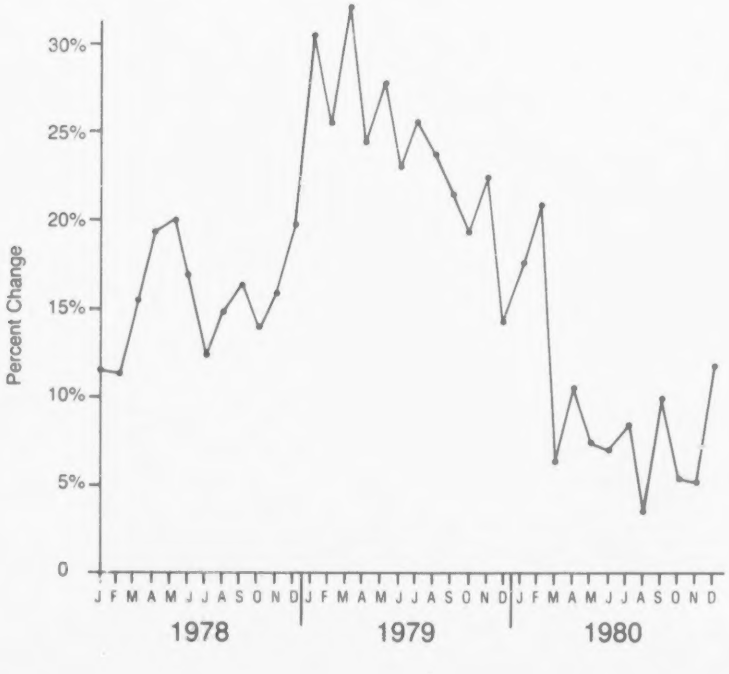
✓ At Shipment Value

(Millions of Current Dollars)

	1st	2nd	3rd	4th	TOTAL
Continuous Custom	419.8	416.1	397.6	424.4	1,657.9
Continuous Stock	266.3	248.6	247.0	269.8	1,031.7
Unit Sets	336.2	321.5	327.1	338.3	1,323.1
Salesbooks, Other	44.2	44.9	42.0	43.0	174.1
TOTAL	1,066.5	1,031.1	1,013.7	1,075.5	4,186.8
1979	931.5	926.1	921.8	981.8	3,761.2
Percent Change	14.5%	11.3%	10.0%	9.5%	11.3%

This data clearly demonstrates the unevenness of the industry's performance in terms of both products and quarters. Continuous custom products performed at approximately the industry average, while the unit set market was significantly weaker. Continuous stock continued to lead the industry.

1980 SALES
Percent Change Over Same Month Last Year
(Current Dollars, Shipment Values)

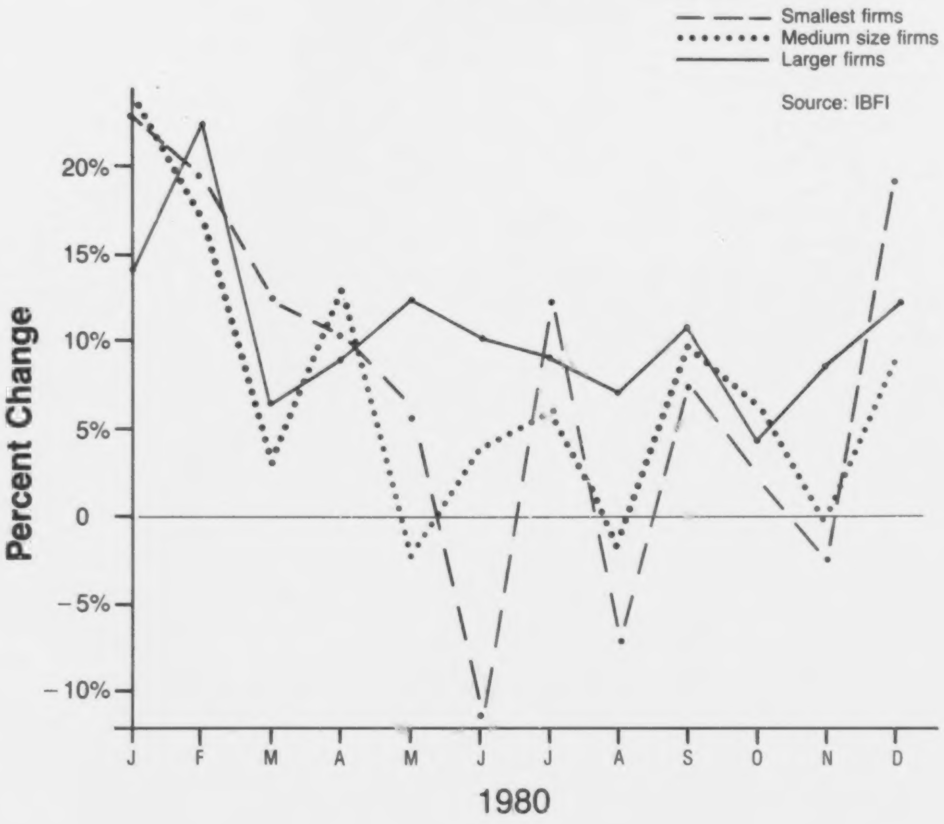


Source: IBFI

Comparison with previous years on a month-by-month basis makes the sales stagnation even more apparent.

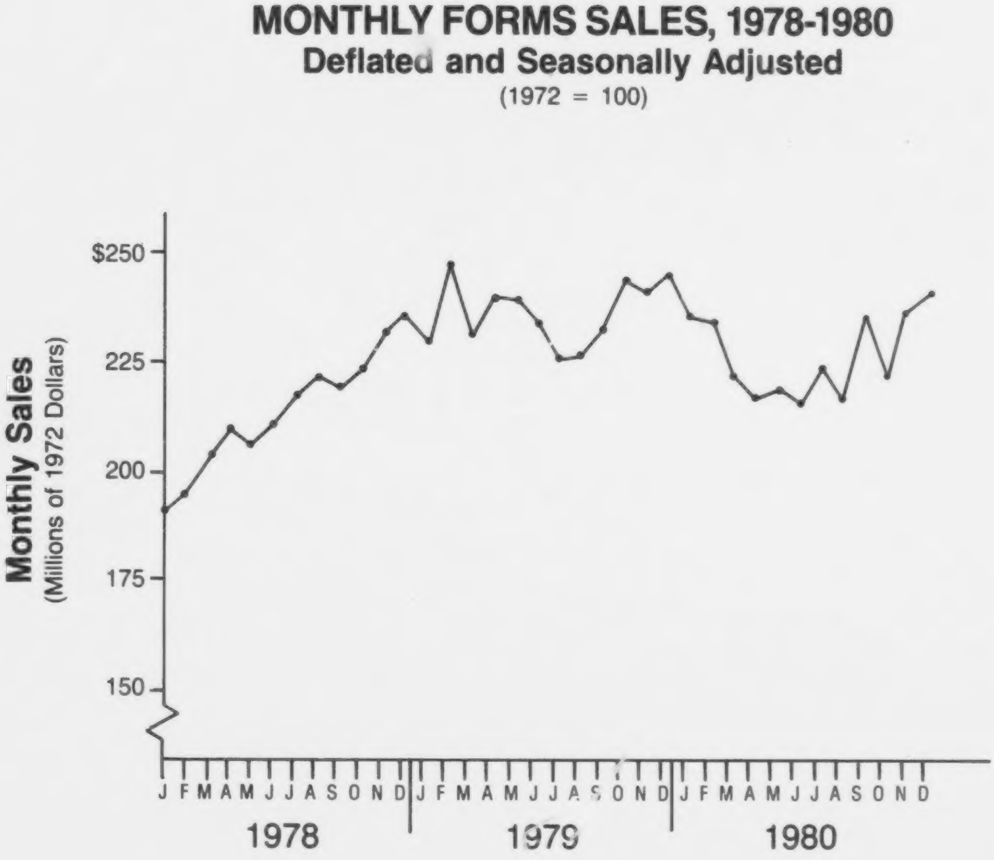
1980 SALES
Broken Out by Size of Firm
Percent Change Over Same Month Last Year

(Current Dollars, Shipment Values)



Source: IBFI

This graph shows that in 1980 there was a wider gap than usual in the sales results of the different sizes of firm. The relatively poorer performance of the smaller firms is due to their concentration in the unit set market. (For a comparison with year-to-year monthly changes in volume or "real" terms, see the graph in Section III entitled "Paper Converted and Shipped".)



MONTHLY FORMS SALES, 1978-1980
Deflated and Seasonally Adjusted
(1972 = 100)

Source: IBFI

In this graph, the dip is clearly indicated in real, or volume, shipment levels.

1980 SALES BY MARKET CHANNEL

(Millions of Current Dollars)

Product:	Direct Sales:	Dealer Sales:[1]	TOTAL SALES AT RETAIL VALUE:
Continuous Custom	$1,270.5	$515.2	$1,785.7
Continuous Stock	869.6	178.1	1,047.7
Unit Sets	890.9	540.3	1,431.2
Salesbooks	87.7	122.1	209.8
TOTAL	$3,118.7	$1,355.7	$4,474.4

[1] Includes estimated dealer mark-up

1980 MARKET CHANNEL ESTIMATES:

(Millions of Current Dollars at Retail Value)

Product:	Share Direct:	Share Dealer:	Product Market Share:
Continuous Custom	71%	29%	39.9%
Continuous Stock	83%	17%	23.4%
Unit Sets	62%	38%	32.0%
Salesbooks	42%	58%	4.7%
TOTAL	69.7%	30.3%	100.0%

This data shows that dealers suffered a slight erosion of market share from a 1979 share of 31.5%. This occurrence is common in times of soft markets and more intense competition.

III. REAL VERSUS PRICE GAINS

Recession years often contain tensions in the marketplace that lead to greater than normal differentials between products and between types of firms. This recession year was no exception. Smaller firms typically lack the financial cushion needed to pass on cost increases; filling up the presses and keeping one's people on the payroll become more important than real growth in volume or profits. Larger firms often accept a small decline in overall market share rather than join the dogfights over the marginal orders (in the belief, of course, that the market share can be regained when the eventual upturn arrives).

The product mix also underwent some interesting although minor changes during 1980. The star performer was stock, with a real gain nearly triple that of the next most healthy product. This result shows the consistency and underlying strength of the market's move into stock from the custom area. Custom continuous forms, meanwhile, continued to outperform the industry average by a small margin even though the end result was rather disappointing. Unit sets, conforming to our notion that they are transaction documents tied more closely to GNP than are other types of form, experienced negative real growth and were the weakest of the industry's products during 1980. Finally, salesbooks registered a slight nominal decline but basically continued in their stagnant existence.

REAL AND APPARENT PERCENT CHANGE BY PRODUCT, 1980

AT SHIPMENT VALUE

(All Dollar Figures are Millions of 1980 Dollars)

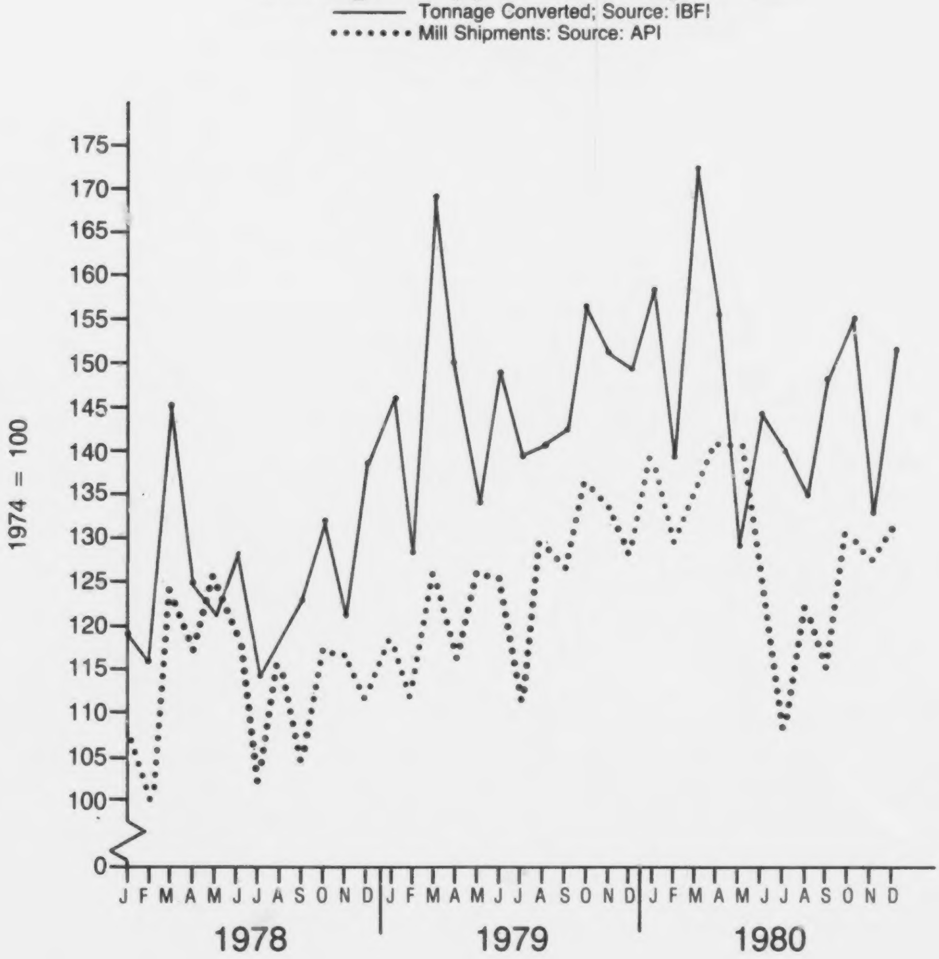
	Continuous Custom:	Continuous Stock:	Unit Sets:	Salesbooks:	Total:
1979	1,466.9	891.4	1,248.7	154.2	3,761.2
1980	1,657.9	1,031.7	1,323.1	174.1	4,186.8
$ Gain	191.0	140.3	74.4	19.9	425.6
% Gain	13.0%	15.7%	6.0%	12.9%	11.3%
$ Price Gain	170.5	103.6	100.6	21.6	396.3
$ Real Gain	20.5	36.7	- (26.2)	- (1.7)	29.3
% Real Gain	1.4%	4.1%	- (2.1)%	- (1.1)%	0.8%

SOURCE: IBFI

NOTE: IBFI's estimates of real versus price gains are based on: comparison of tonnage shipped and converted with current-dollar sales levels; rises in the prices of raw materials and labor (tracked by both IBFI and the Bureau of Labor); information contained in 10-K's, annual reports and other publicly available information filed by the industry's publicly owned companies; and published price lists.

FORMS BOND

Index of Tonnage Converted and Tonnage Shipped from Paper Mills



The drop in real sales to levels of the previous year is very apparent in this graph. The difference in the level of the API Shipments and IBFI data is because the API tracks forms bond (uncoated free sheet) only while IBFI includes groundwood, carbonless papers and a small quantity of cut sheet (but excludes carbon tissues). The difference in the timing of movements in the two series is due to the fact that the API is measuring mill shipments while IBFI is measuring forms factory usage.

REAL GROWTH IN 1980 VS. 1979
BREAKDOWN BY SIZE OF FIRM

(All Figures in Millions of 1980 Dollars at Shipment Value)

Firm Size by Annual Sales	1980 Current Dollar Sales	Gain Over 1979	Price Gain	Real Gain
$3 million & under	$ 341.2	$ 24.2	$ 33.1	-(8.9)
$3-$8 million	462.9	35.2	27.1	8.1
$8-$15 million	212.3	11.3	21.1	-(9.8)
$15-$50 million	305.9	29.1	20.8	8.3
$50-$100 million	784.3	83.0	66.9	16.1
$100 million & up	2,080.2	242.8	227.3	15.5
TOTAL, ALL FIRMS	4,186.8	425.6	396.3	29.3

SOURCE: IBFI

REAL AND APPARENT 1980 PERCENTAGE GAINS BY SIZE OF FIRM

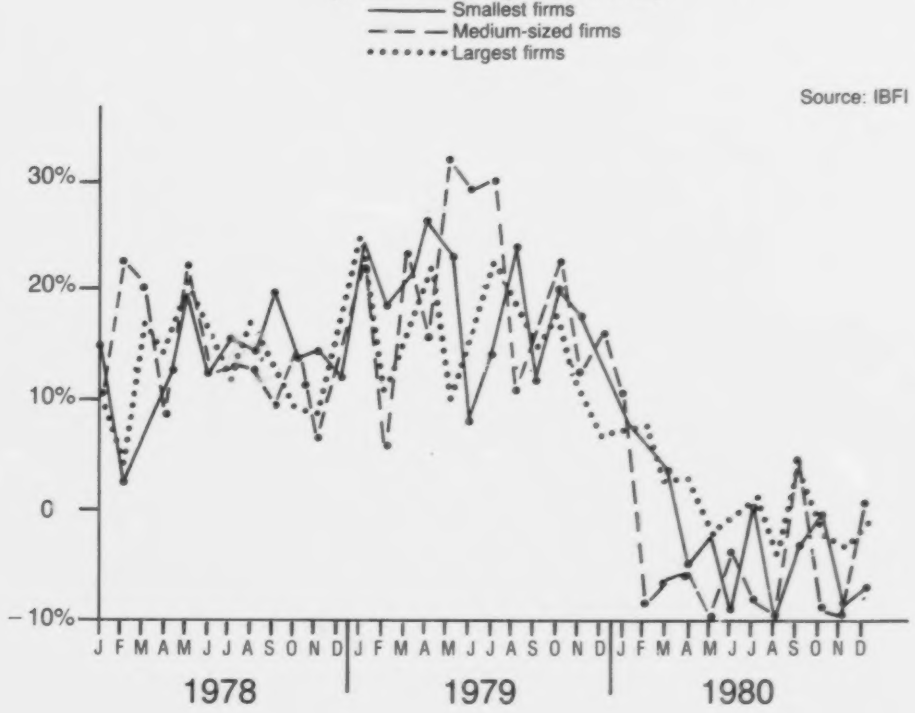
Firm Size by Annual Sales	Price Gain	Real Gain	Total Gain
$3 million & under	10.4%	-(2.8)%	7.6%
$3-$8 million	6.3%	1.9 %	8.2%
$8-$15 million	10.5%	-(4.9)%	5.6%
$15-$50 million	7.5%	3.0 %	10.5%
$50-$100 million	2.3%	2.3 %	11.5%
$100 million & up	12.4%	0.8 %	13.2%
TOTAL, ALL FIRMS	10.5%	0.8 %	11.3%

SOURCE: IBFI

PAPER CONVERTED AND SHIPPED

Percent Change Over Same Month Last Year

(Broken Down By Size of Firm)



Source: IBFI

This graph demonstrates that differentials in year-to-year changes in paper converted were much smaller among the various sizes of firms than were changes in the current dollar value of forms shipped. The obvious inference is that the larger firms were better positioned to protect their margins in a softer market. (For a comparison of real and apparent year-to-year monthly changes see the graph in Section II entitled "1980 Sales: Percent Change Over Same Month Last Year".)

IV. 1980 OPERATING CONDITIONS AND PROFITABILITY

It has already been stated that 1980 was in many ways a disappointing one for the forms industry. Nowhere is this disappointment more visible than in the profitability picture. There are several reasons for the slippage which occurred here. Most obvious, of course, is the softness of the market. Furthermore, the discounting that results from such a market has come at a time when the cost of the industry's inputs continues to rise.

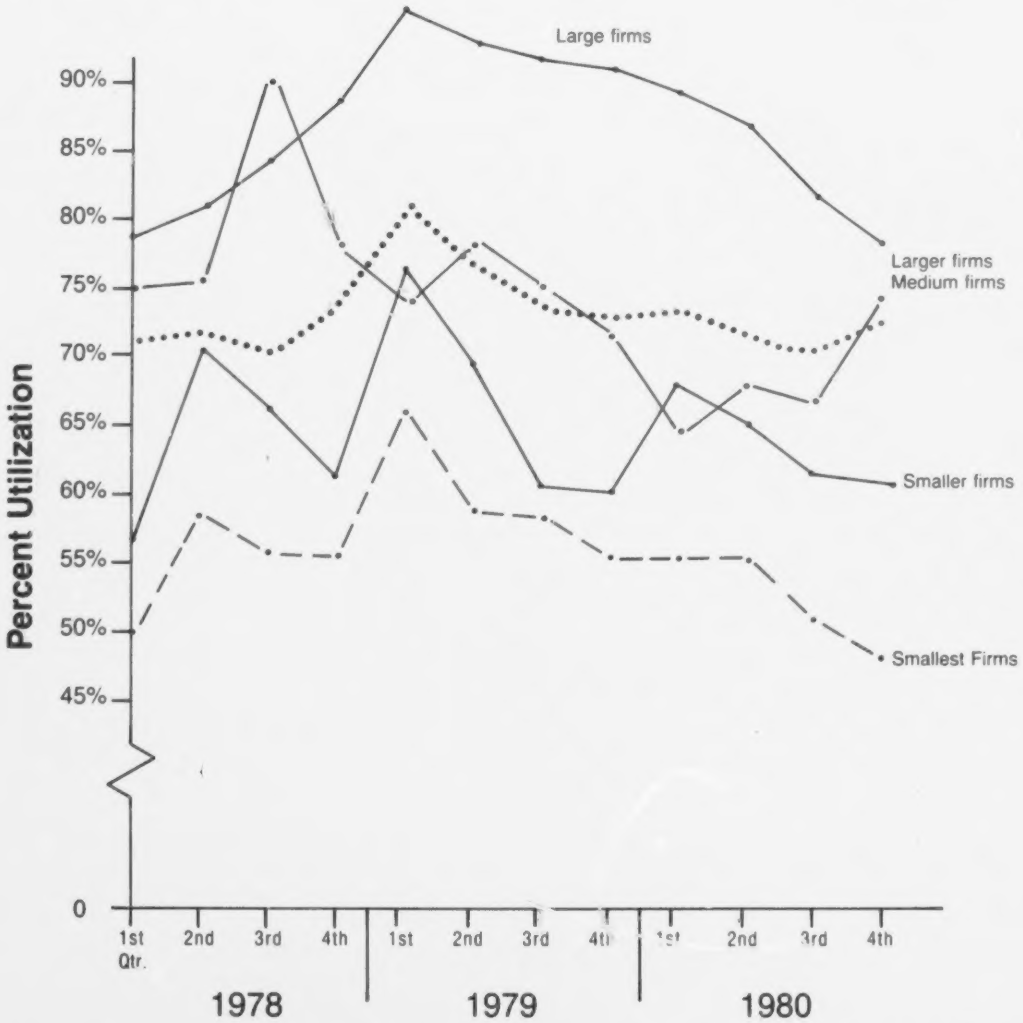
Another factor leading to lower profits is higher overhead per job. This is an inevitable result of lower capacity utilization rates and in many cases less favorable job/product mixes that are often a by-product of recession.

In this section current and recent operating conditions and ratios are quantified and analyzed.

MEDIAN QUARTERLY CAPACITY UTILIZATION

(Standardized at 100% = 120 Press Hours)

Source: IBFI

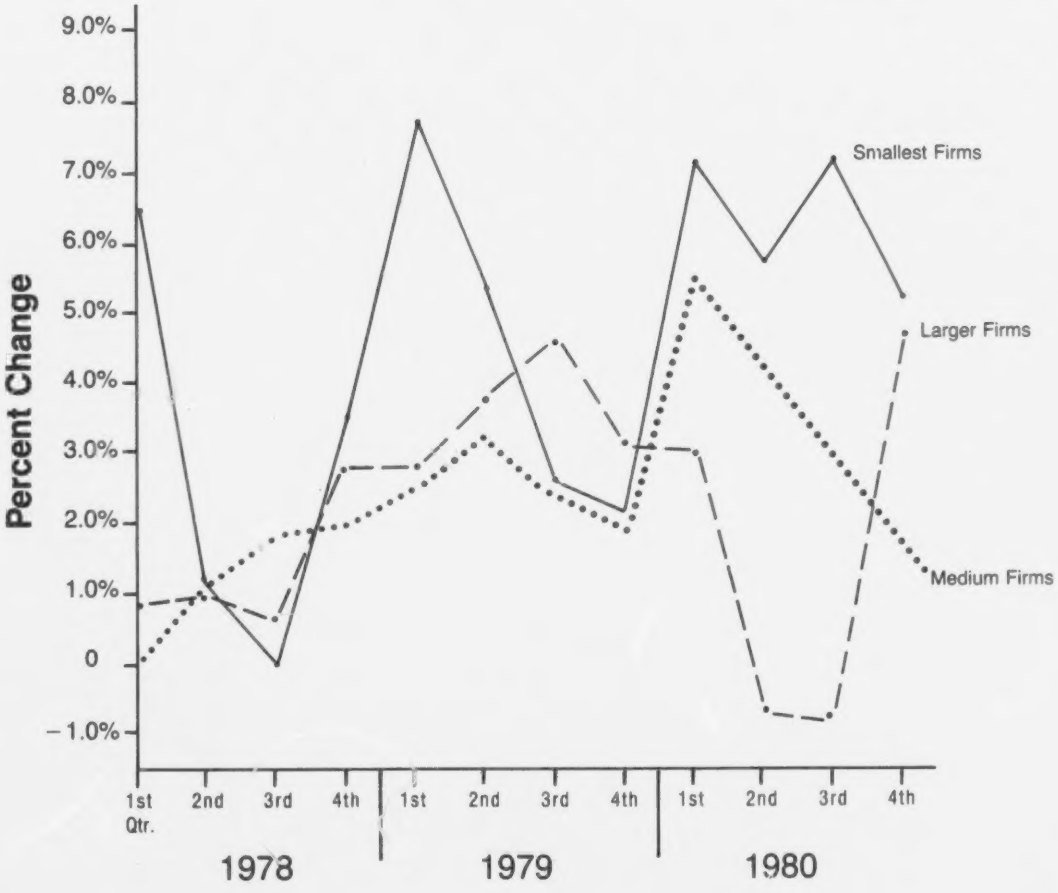


This graph demonstrates the steady decline in capacity utilization which has resulted from heavy investment in new equipment and a softer market.

Although forms shipments remained stable, the industry absorbed a number of new presses during 1980. Most of this equipment had been ordered in 1979 and unfortunately came on stream at a time when the market was softer and interest rates higher. In fact, a fair number of those orders were reportedly cancelled or delayed. Also, there was above-average activity in the used-equipment market as some firms which had taken delivery of new equipment either could not afford the carrying charges while building up the needed new business or decided to retire older equipment sooner than orginally planned.

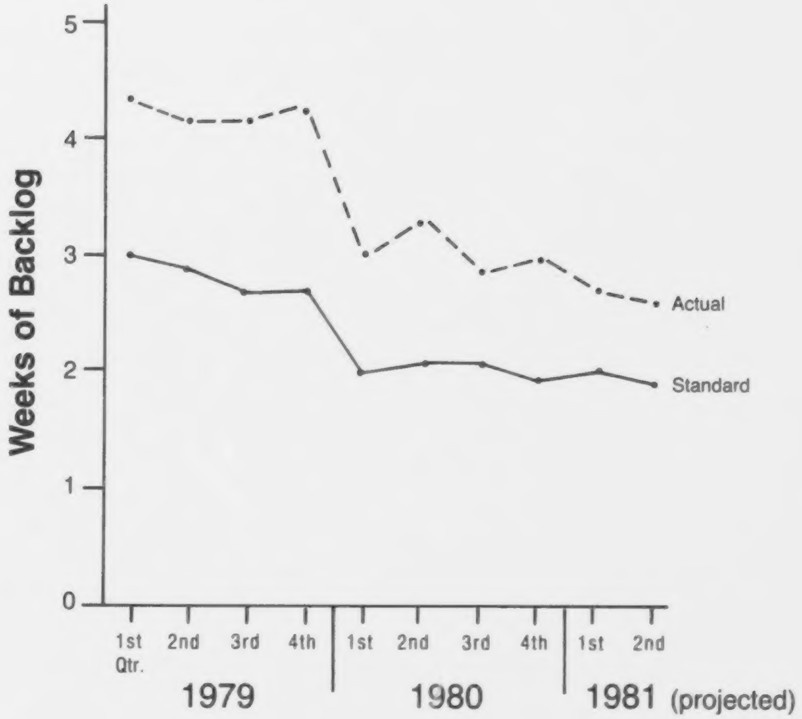
QUARTERLY PERCENT CHANGE IN NET CAPACITY INSTALLED

Source: IBFI



This graph demonstrates the surprisingly high level of net capacity additions during 1980.

QUARTERLY BACKLOGS AT STANDARD AND ACTUAL CAPACITY



Source: IBFI

NOTE: Standard Capacity is calculated at 120 press hours per week.

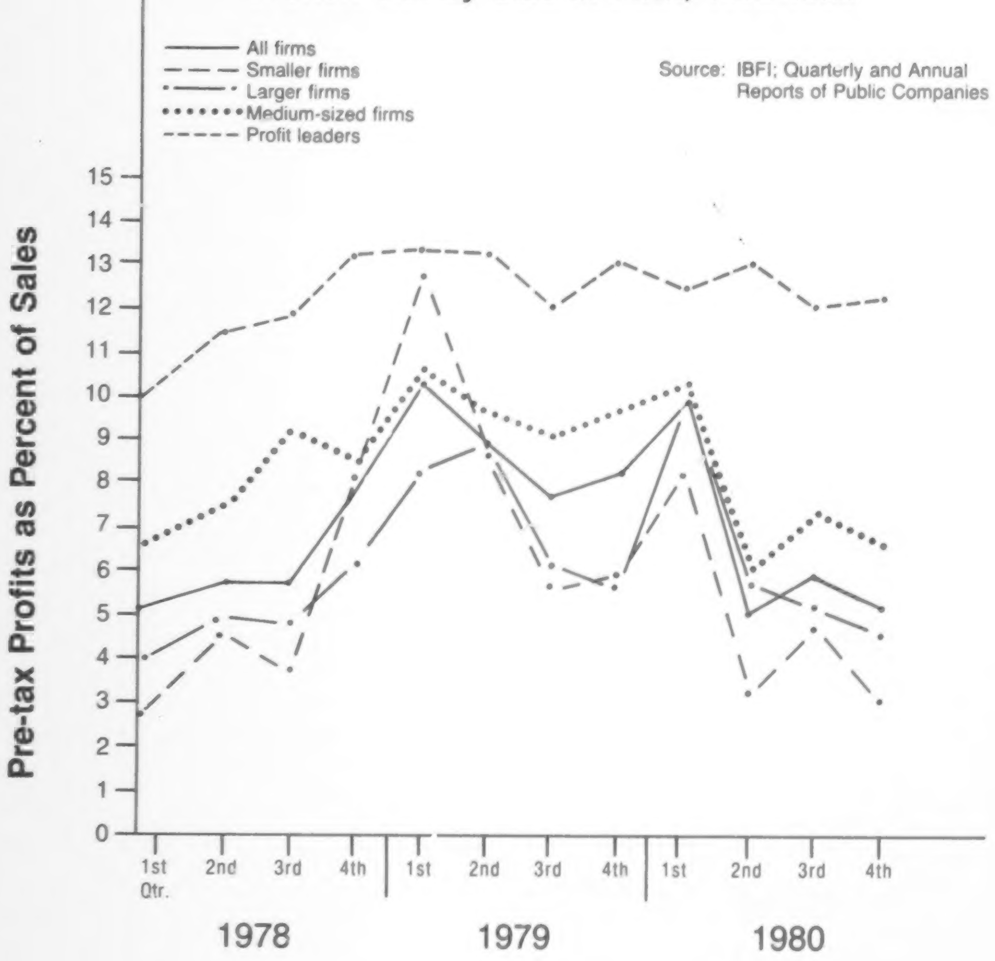
BACKLOGS BY QUARTER

	Weeks At Standard Capacity	Weeks At Actual Capacity
1979/ 1	3.0	4.3
2	2.9	4.2
3	2.7	4.2
4	2.7	4.3
1980/ 1	2.0	3.0
2	2.1	3.3
3	2.1	2.9
4	1.9	3.0

Backlogs measured at standard capacity have showed a steady decline. Sales, however, have been sufficient to allow most companies to stretch out their orders a bit by cutting overtime and press utilization. Thus backlogs at actual capacity have remained in the acceptable range for most firms, but the gap is gradually narrowing.

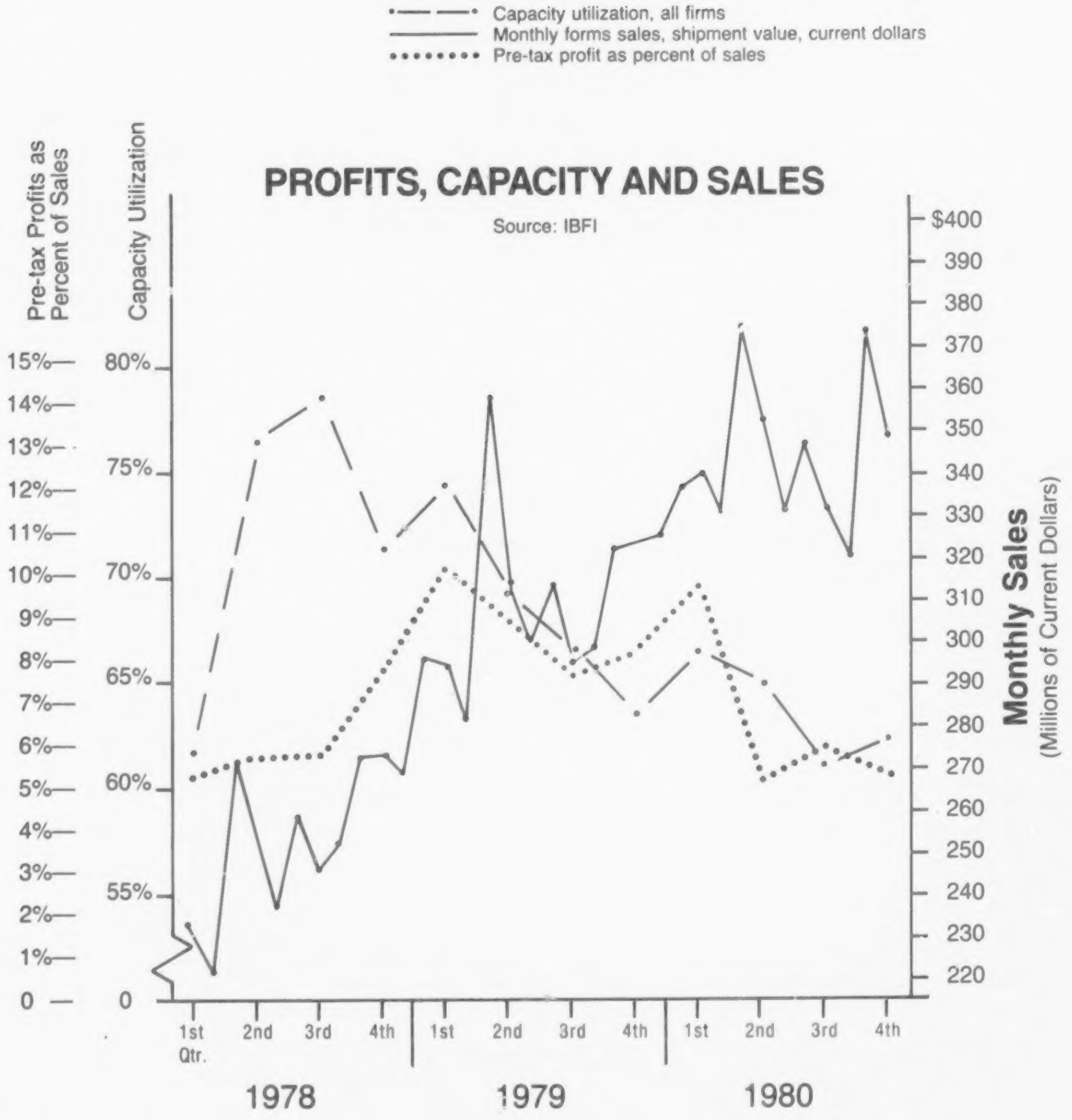
PROFITABILITY BY QUARTER

Broken Out by Size of Firm, 1978-1980



Source: IBFI; Quarterly and Annual Reports of Public Companies

In this graph the decline in profitability is painfully evident. Regrettably, past performance strongly suggests that profitability will remain weak into early 1982 despite a projected market upturn late in 1981.



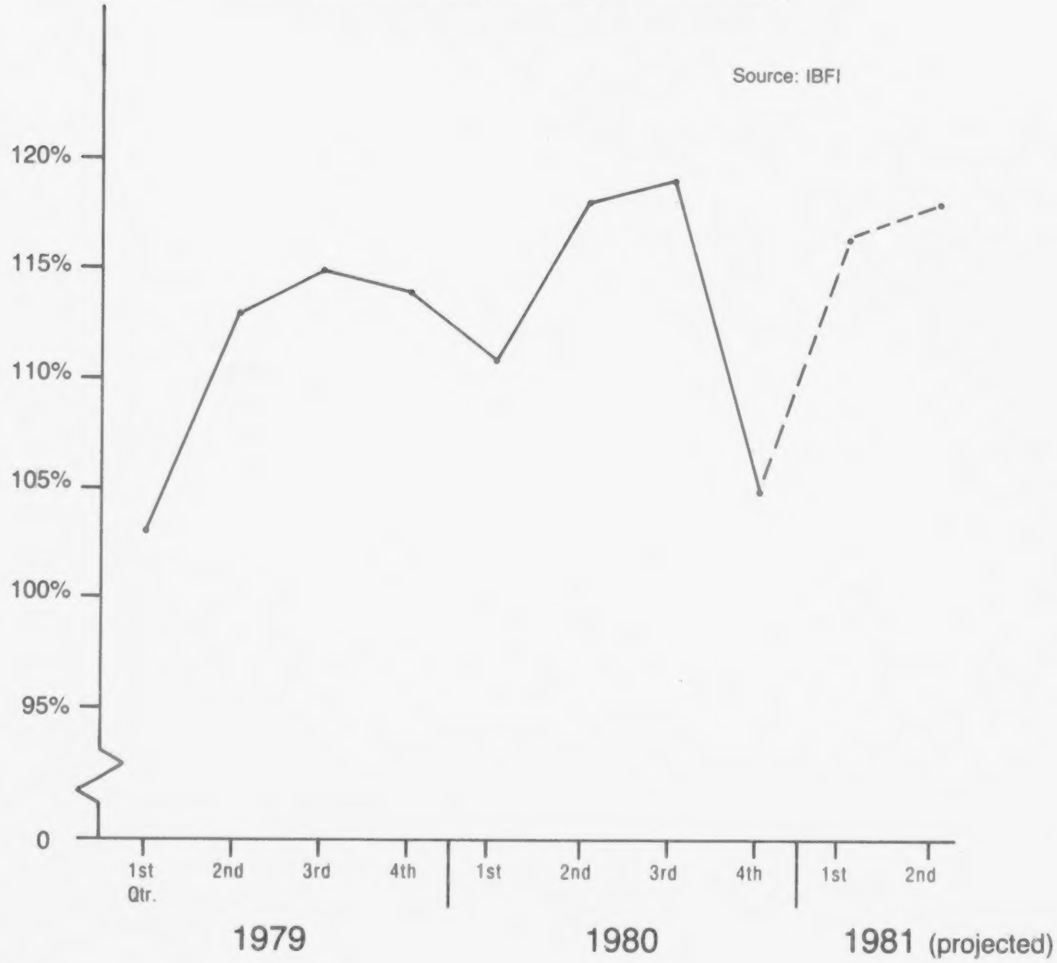
PROFITS, CAPACITY AND SALES

Source: IBFI

This graph shows that current dollar sales levels are not the main determinant of profits. It is instead the interaction of net additions to capacity and changes in real-volume sales levels that determine profits.

INVENTORIES OF PAPER, 1979-1980

(expressed as a percentage of normal levels)



Source: IBFI

As this graph demonstrates, inventories rose during the second half of 1979 in a natural reaction to widespread paper shortages that year. Then they rose again in 1980 as orders failed to keep pace with paper deliveries. Finally, inventory levels were trimmed sharply in the last quarter - a process which was definitely felt by paper companies. (NOTE: Remember that this graph does not track physical levels of inventory, but instead *relates* inventory to other factors).

V. THE IBFI FORECAST

The Economy

From mid-1981 through the end of 1984 general economic conditions will be quite favorable. However, the sky is not cloudless. As the forecast below predicts, inflation will remain at high levels as will the rate of interest. Also, with the exception of 1982 which should be a consumer-driven boom, much of this three to three and one-half year upswing will be driven by business investments. Many of these investments will be updating existing plants rather than developing brand new sites. As a result, growth in the real purchasing power of the average consumer will remain sluggish. The temporary but sharp upturn in government spending in 1984 is based on an assumption that the Congress will increase spending in a major election year. The downturn in 1985 is based on analysis of the post-World War II pattern of the business cycle.

KEY ELEMENTS OF THE IBFI ECONOMIC FORECAST

(All Data Are Real Year-To-Year Percent Changes)

	1978	1979	1980	1981	1982	1983	1984	1985
GDP	4.4	2.4	- (1.4)	0.5	4.0	3.1	3.1	1.6
Investment	7.1	2.7	- (6.9)	- (6.4)	12.0	4.8	5.5	1.9
Government Expenditures	2.8	0.4	2.6	0.6	0.7	0.9	1.2	0.8
CPI	7.5	11.3	13.9	11.7	9.8	9.6	8.6	7.5
Industrial Production	5.8	4.1	- (3.2)	- (0.7)	10.3	6.4	6.5	3.8
Primary Goods Prices	- (0.1)	37.1	44.2	17.3	15.0	14.1	10.0	9.5
Interest Rate	8.5	9.3	10.4	13.5	12.5	12.0	10.9	10.1

Forms

Trends in forms sales to 1985 will be largely favorable. The positive dynamics will be renewed economic growth and the small-business and minicomputer explosions. Competing technologies will continue to fuel the comparatively rapid change-over to stock and one-part forms. As the data below suggests, the short- and medium-term impact will be on value added rather than sales levels. The 1985-90 picture is, however, very cloudy at this point in time.

1981 FORECAST BY PRODUCT AND QUARTER

(Millions of 1980 Dollars at Shipment Values)

	1st	2nd	3rd	4th	TOTAL	Percent Change
Continuous Custom	406.3	414.2	421.0	455.5	1,697.0	2.4 %
Continuous Stock	270.1	268.0	260.9	294.6	1,093.6	6.0 %
Unit Sets	324.0	318.5	328.8	358.7	1,330.0	0.5 %
Salesbooks, Other	43.0	43.2	42.8	43.0	172.0	- (1.2)%
TOTAL	1,043.4	1,043.9	1,053.5	1,151.8	4,292.6	2.5%

SOURCE: IBFI

1982 FORECAST BY PRODUCT

(Millions of 1980 Dollars at Shipment Values)

	1980 Sales	Percent Change
Continuous Custom	1,866.7	10.0%
Continuous Stock	1,216.9	11.3%
Unit Sets	1,441.7	8.4%
Salesbooks, Other	175.0	1.7%
TOTAL	4,700.3	9.5%

SOURCE: IBFI

Profitability during these years will be inconsistent. Nor will it achieve in real terms the levels enjoyed during the Sixties. So-called book profits will remain adequate. However, the "economic" profit - the true retained earnings after all investment and other hidden costs of staying viable are subtracted - will suffer from heavy investment in new presses geared to quicker make-ready and shorter runs.

1983 - 1985 FORECAST BY PRODUCT

(Millions of 1980 Dollars at Shipment Values)

	1983	1984	1985
Continuous Custom	1,998.3	2,113.8	2,127.6
Continuous Stock	1,332.3	1,444.8	1,496.9
Unit Sets	1,540.0	1,638.3	1,706.8
Salesbooks, Other	177.6	179.4	179.4
TOTAL	5,048.2/7.4%	5,376.3/6.5%	5,510.7/2.5%

(percentages are real change over previous year)

SOURCE: IBFI

Paper

The paper market will remain fairly tight, especially once the economy is fully recovered from the recession. Despite several new paper machines that have or soon will come on stream, shortages of forms bond are very likely in mid-1981.

Carbonless: This product will continue its steady penetration of the multi-part forms market. Capacity growth is expected to be adequate for the increased demand.

Year:	Tons Of Carbonless:
1980	400,000
1985	700,000
1990	1,200,000

SOURCE: IBFI

One-Time Carbon: Shipments of this product will remain stable, entering into a mild decline in the mid-Eighties. Such stability, however, hides serious erosion of market share in a growing industry.

In general, more cut size will be going into the forms market. Also there will be greater variety of basis weights, with a slight upward trend.

INDUSTRY PAPER REQUIREMENTS

(In Tons)

	1980	1981	1982	1983	1984	1985
Continuous Custom	708,000	730,000	809,000	871,000	927,000	942,000
Continuous Stock	648,000	694,000	780,000	861,000	941,000	984,000
Unit Sets	512,000	518,000	564,000	605,000	646,000	676,000
TOTAL	1,868,000	1,942,000	2,153,000	2,337,000	2,514,000	2,602,000

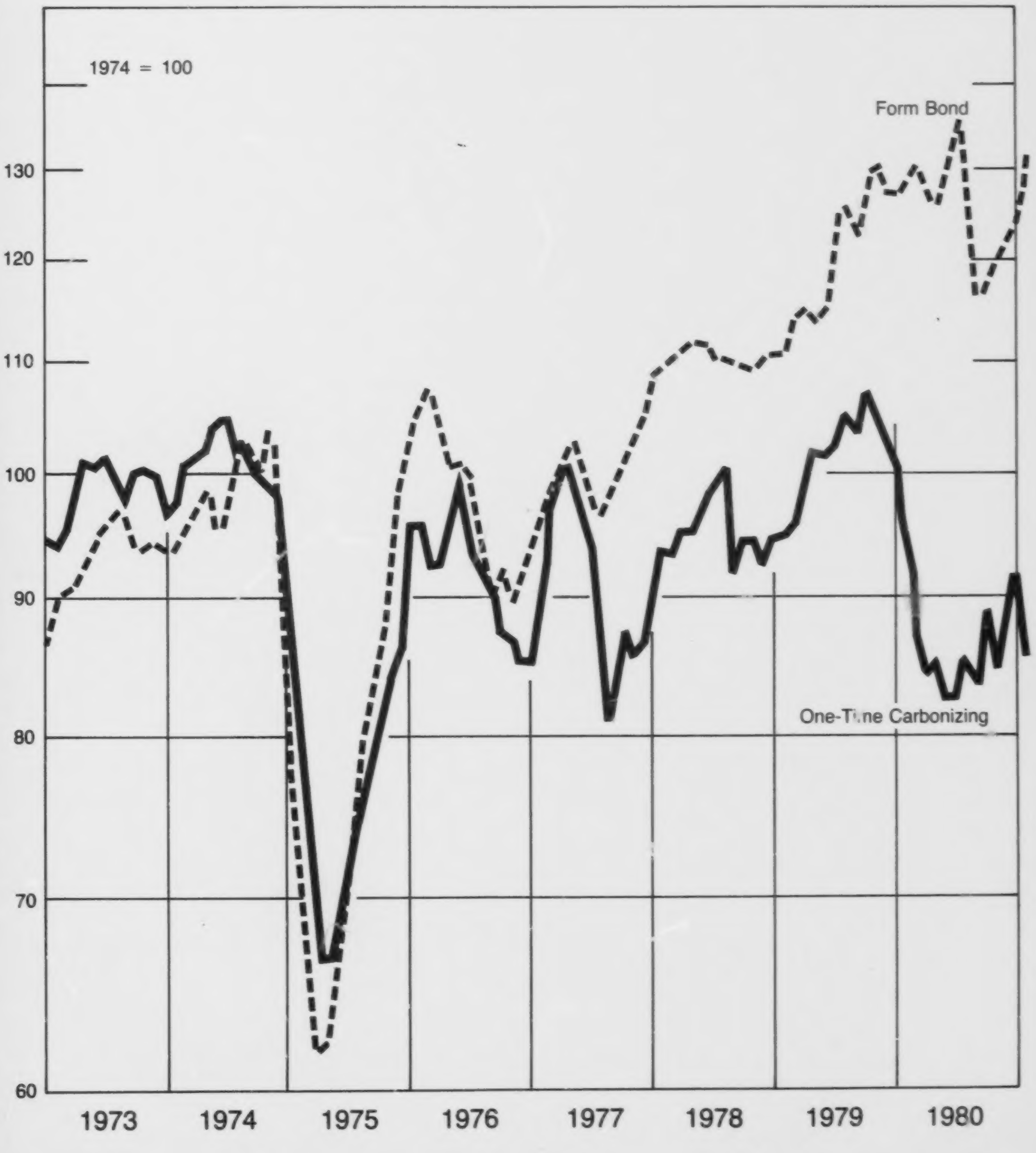
SOURCE: IBFI

The graph below shows movements in sales of forms bond and one-time carbonizing tissue.

(1980 Estimates)

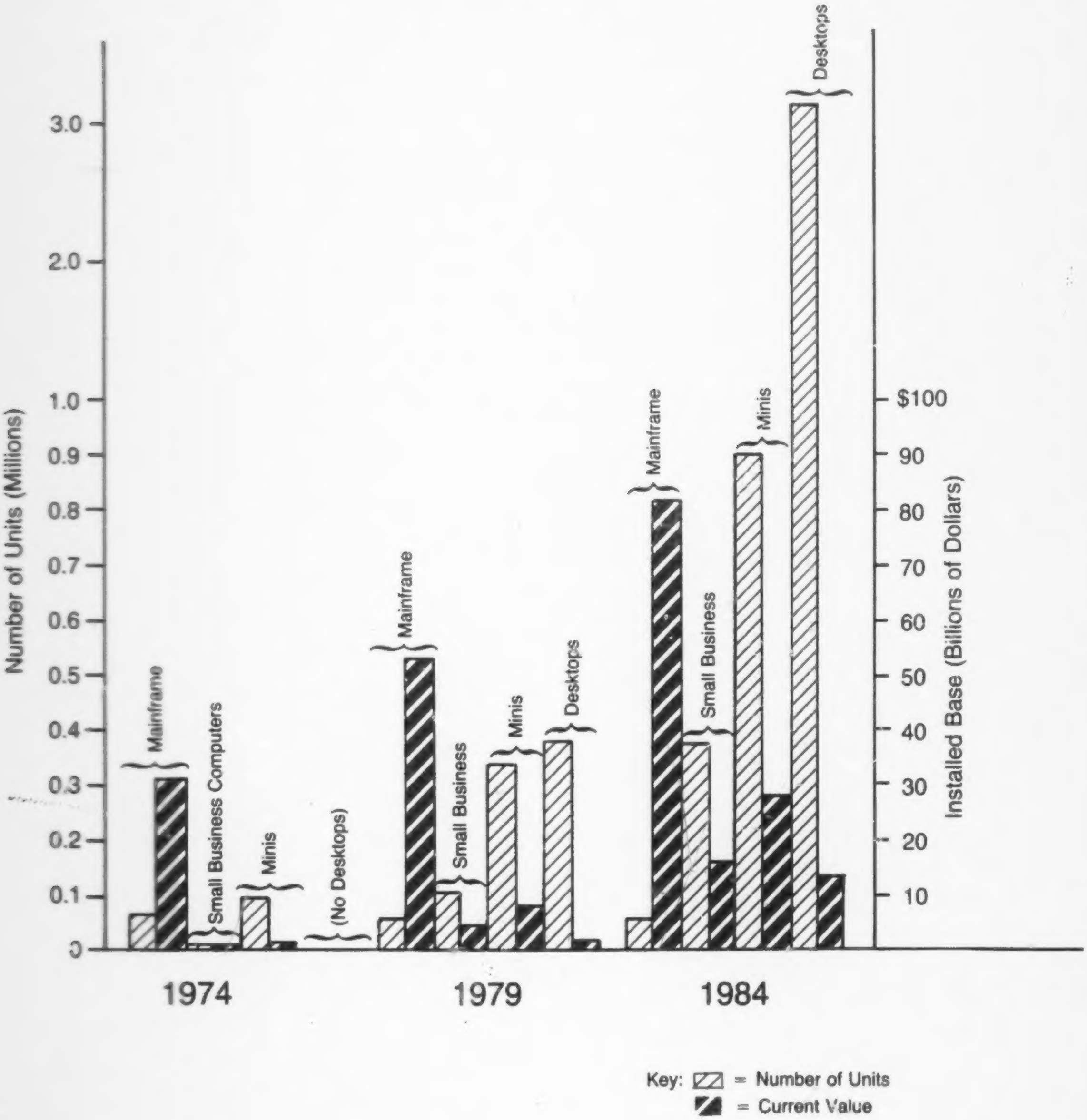
INDICES OF MILL SHIPMENTS OF FORMS BOND AND ONE-TIME CARBONIZING TISSUE

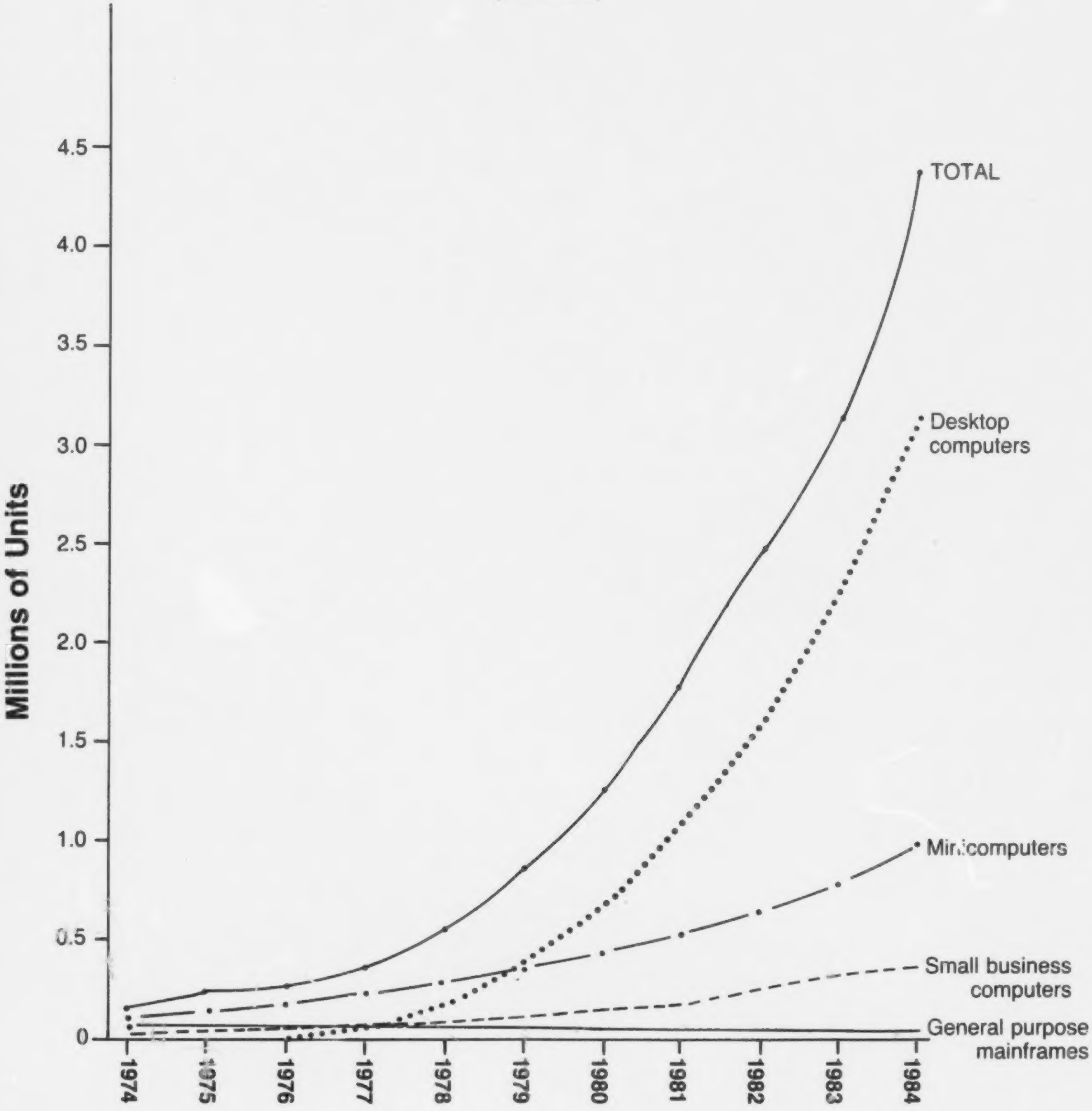
Source: API



Computers remain an important determinant of demand for our industry's products. It is fortunate for all that small and mini computers became techno-economically feasible just as the market for large general-purpose mainframes was approaching saturation. The following graphs and chart track trends in the computer industry and present projections through the mid-Eighties. Note that while the installed value is a good approximation of "computing power", the smaller units use a larger amount of forms per dollar of machine value than do the larger and more expensive machines.

THE U.S. COMPUTER MARKET:
Number of Units vs. Installed Value



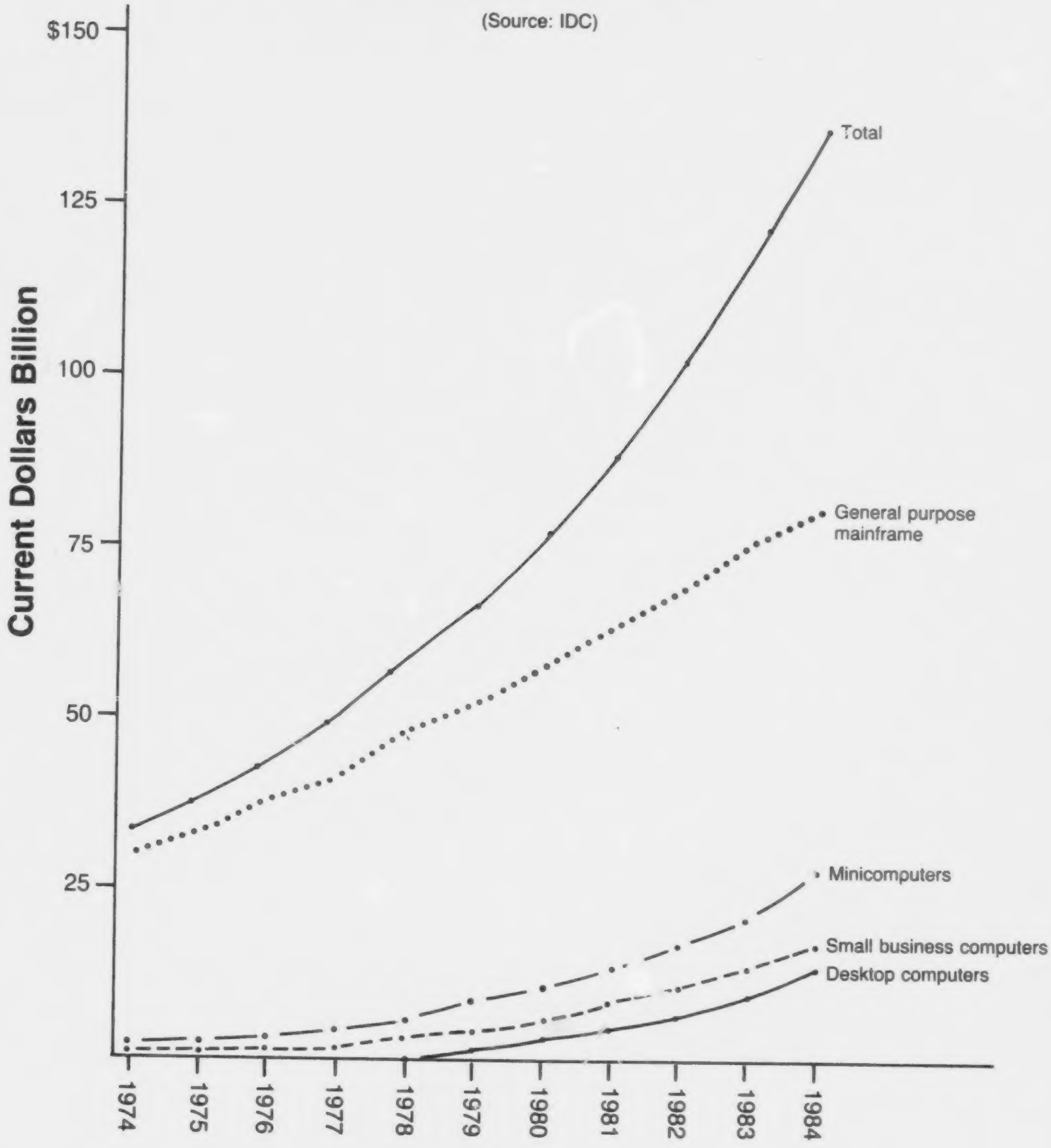


COMPUTER MARKET SUMMARY:
U.S. Installed Field Population

(Source: IDC)

CURRENT TOTAL VALUE OF U.S. COMPUTER POPULATION

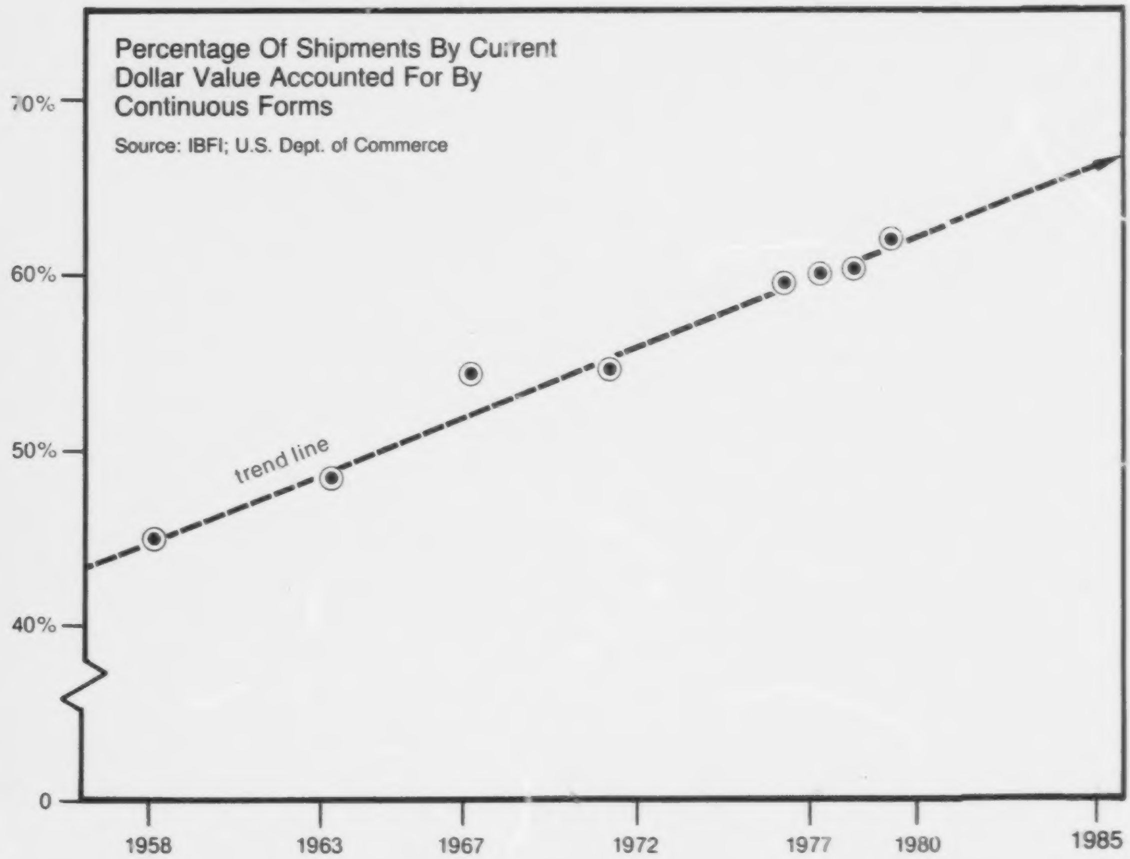
(Source: IDC)



VI. MEDIUM TERM MARKET TRENDS

Measuring the real growth of forms shipments has always been a difficult and controversial task. Throughout the industry's development, analysts have had to contend with steady though never radical shifts in product specification and mix. Because of these shifts it has never been possible to define, let alone measure, the industry's unit production in any meaningful way. Nor has our twelve-year-old bout with persistent but sharply variable rates of inflation been of any help.

Of course these obstacles to the definition and measurement of unit production do not mean that real growth has been ignored; far from it. The stress in the preceding discussion should be placed on "meaningful". Total impressions, total pages, or any other pure physical-quantity production measurement does not have the relationship to profit or even sales dollars that it would have in many other industries, e.g. the auto industry. This section, therefore, examines medium-term trends that will affect product mix, value added, and profitability. It ends by drawing some conclusions about the net impact of currently foreseeable trends on growth.

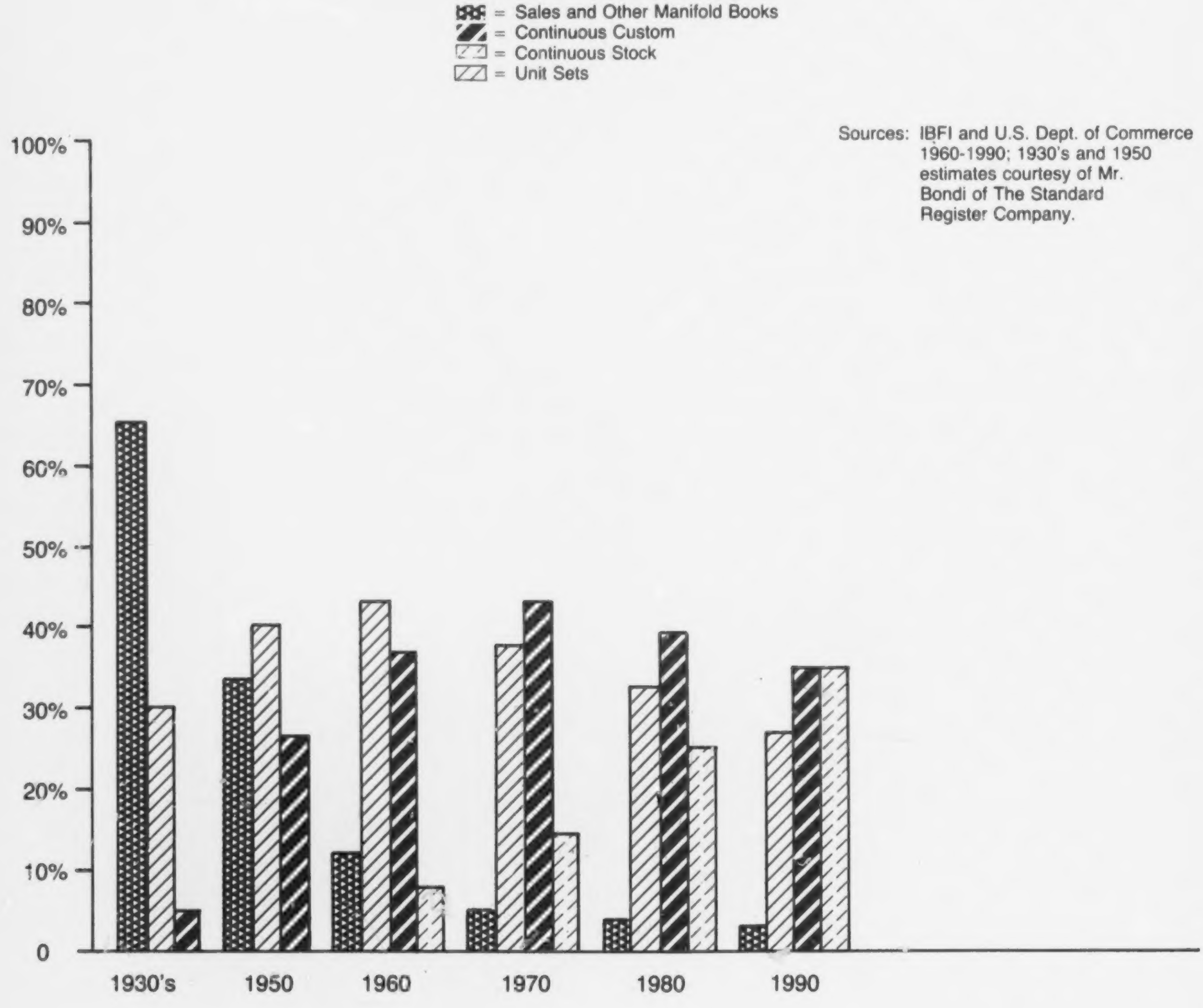


One of the most important trends in our market is the slow but steady rise in the market share of continuous forms. As this graph illustrates, that trend shows no sign of abatement so that by 1985 some two-thirds of all forms by dollar value will be continuous products. Since unit sets have a higher value added than most continuous forms, this trend is even more apparent if tracked in terms of paper tonnage converted (for detailed projections on paper tonnage use by product, see Section V).

The increased relative importance of continuous forms is but one part of a long-term shift in the industry's product mix. In the jargon of product life-cycle analysis, unit sets are a mature product which, if one looks beyond the next five years, will ultimately prove most vulnerable to new technologies in business systems. Custom continuous will continue for the next 10 years at least to bleed its larger orders into stock products at the same time that it absorbs new orders of a lower average value from small computers. The sales and manifold book market will continue to stagnate.

These trends are illustrated in the next 2 graphs.

PRODUCT LIFE CYCLES
Product Shipments by Value
As a Percentage of Industry Shipments
(Measured at Current Dollars and Shipment Value)

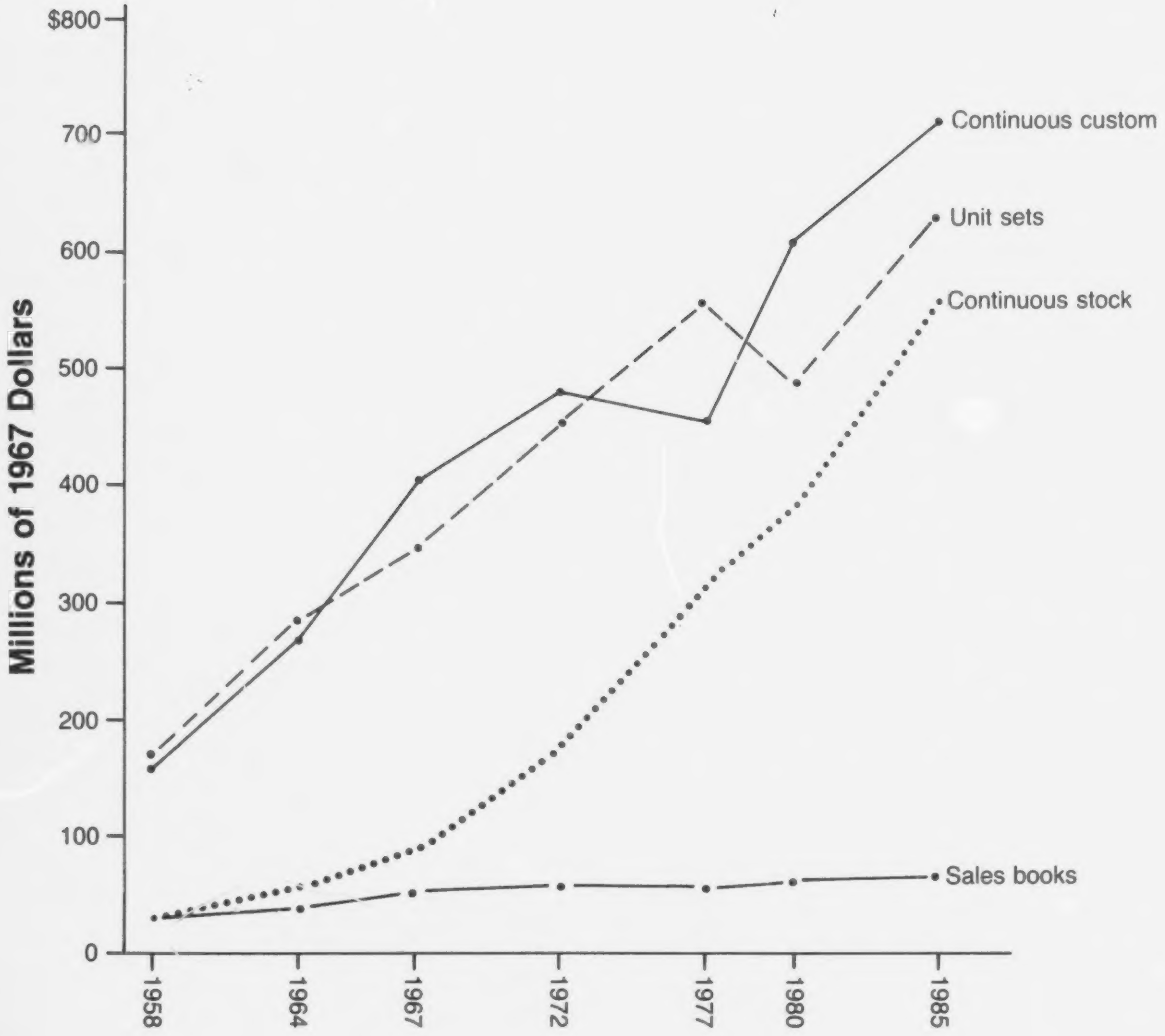


Sources: IBFI and U.S. Dept. of Commerce 1960-1990; 1930's and 1950 estimates courtesy of Mr. Bondi of The Standard Register Company.

Here is shown the rapid and continuing growth of continuous stock at the expense of continuous custom and unit set products.

FORMS SALES
By Product, 1958-1985
Shipment Values, 1967 Dollars

Sources: IBFI and U.S. Dept. of Commerce



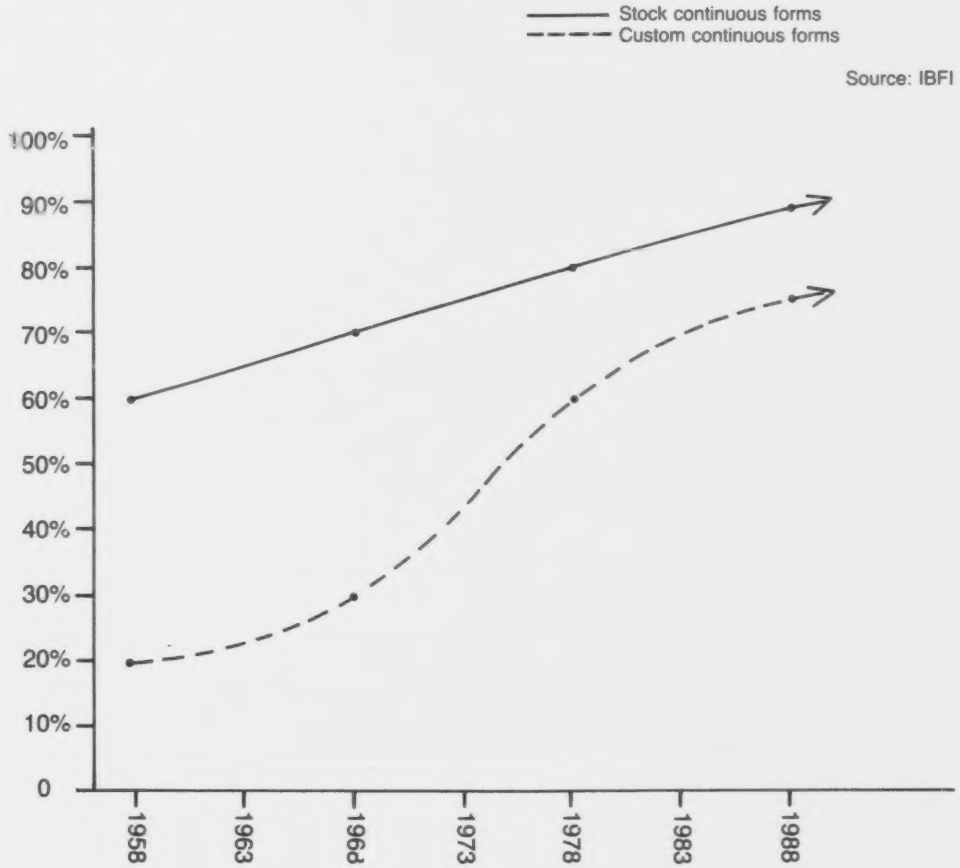
NOTE: For the purposes of this presentation, sales were deflated using the implicit deflator for printing and publishing (major industry SIC group 27). The *absolute* accuracy of the series is doubtful, especially for the 1972-77 period, but its internal consistency makes it ideal for such a long time series.

Of course, the growing relative importance of continuous products does not mean that unit sets are stagnant or declining. It means instead that sales of continuous forms are growing more rapidly - sometimes a great deal more rapidly - than other products.

Within the continuous market itself, however, important changes are giving that part of the business a new shape. The average size of such forms is decreasing as the popularity of 8½ X 11 continues to increase. As more and more users find that increased runnability more than compensates for the added cost, the average basis weight is climbing slightly, with 15-pound gaining over 12-pound and 18 and 20-pound varieties gaining in favor. Most noticeable, though - and having the greatest potential impact upon value added - is the switch from custom to stock, the reduction in the average number of parts per multi-part set, and a very steady rise in one-part continuous forms. At the same time, the custom work is often using more colors and more specialty features.

ONE-PART FORMS

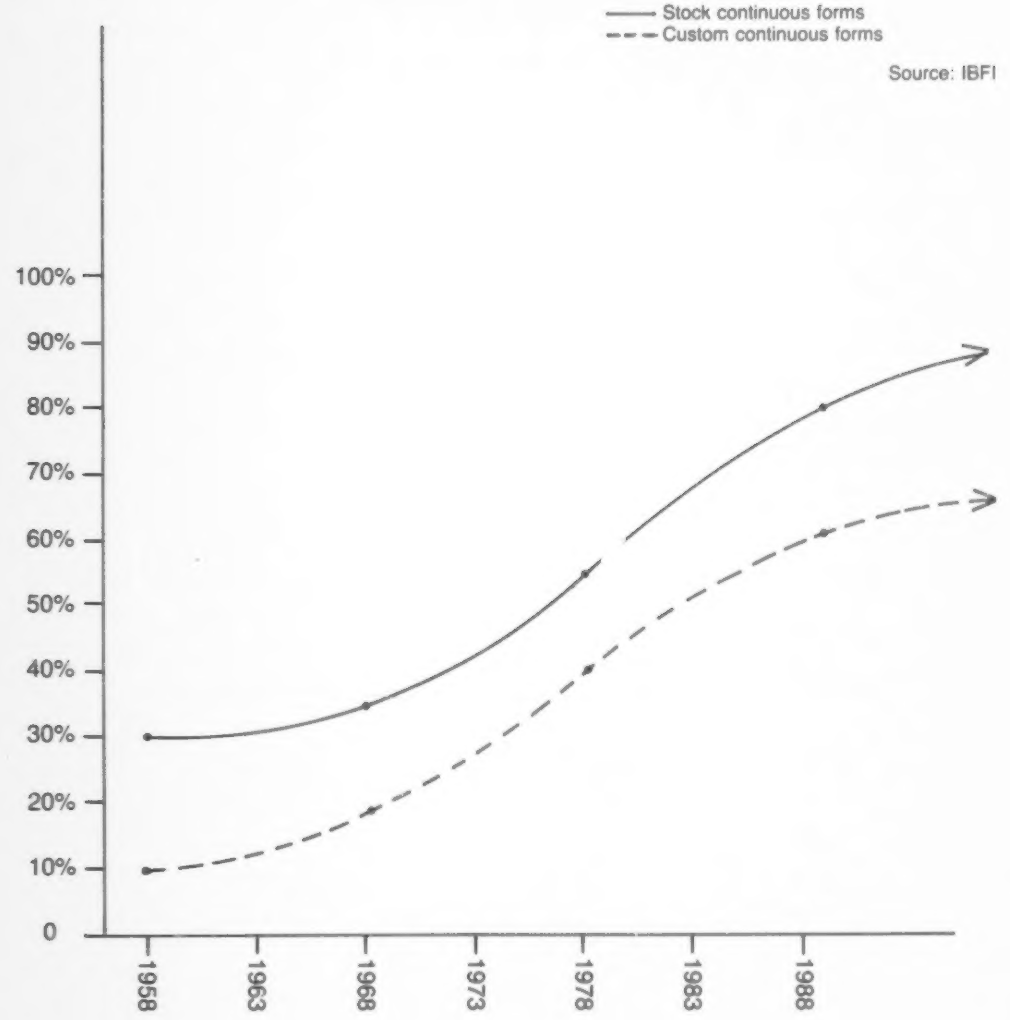
As a Percentage of Total Sets



Source: IBFI

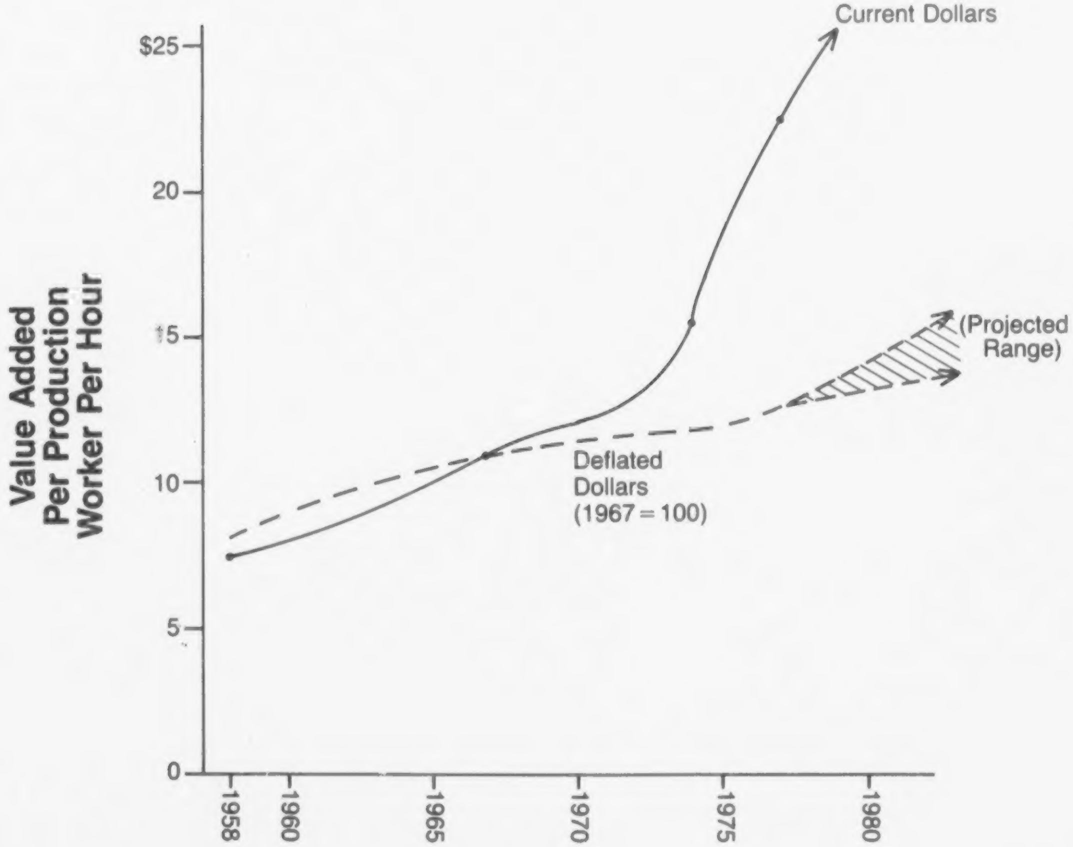
This graph and the one following it illustrate the rising usage of one-part "sets". This trend will have its greatest impact in the 1978-1988 period.

ONE-PART FORMS
As a Percentage of Total Pages



Source: IBFI

So far these trends have impacted more heavily on value added than on actual dollar levels of shipments (for a more detailed look at value added trends see the graph in Section IX entitled "Value Added as a Percentage of Shipments"). Fortunately the industry's manufacturing efficiency does not seem to have suffered the erosion with which many other sectors of the U.S. economy have been troubled.

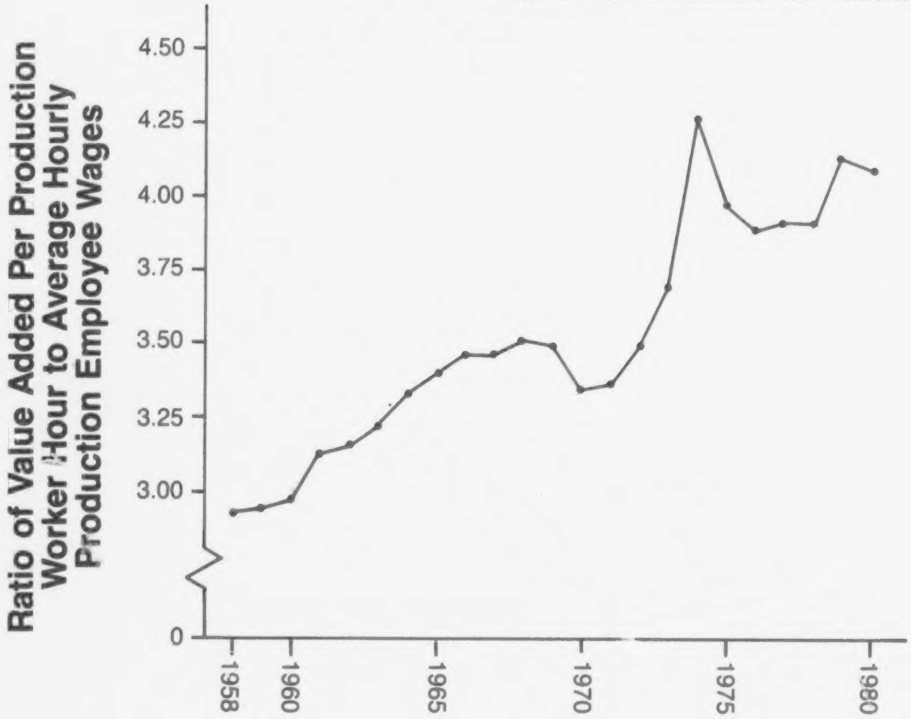


MANUFACTURING PRODUCTIVITY
In the Forms Industry

SOURCE: IBFI, U.S. Dept. of Commerce

This graph indicates clearly that gross value added has increased at a steady albeit modest rate throughout the past twenty-five years.

FORMS INDUSTRY
MANUFACTURING PRODUCTIVITY

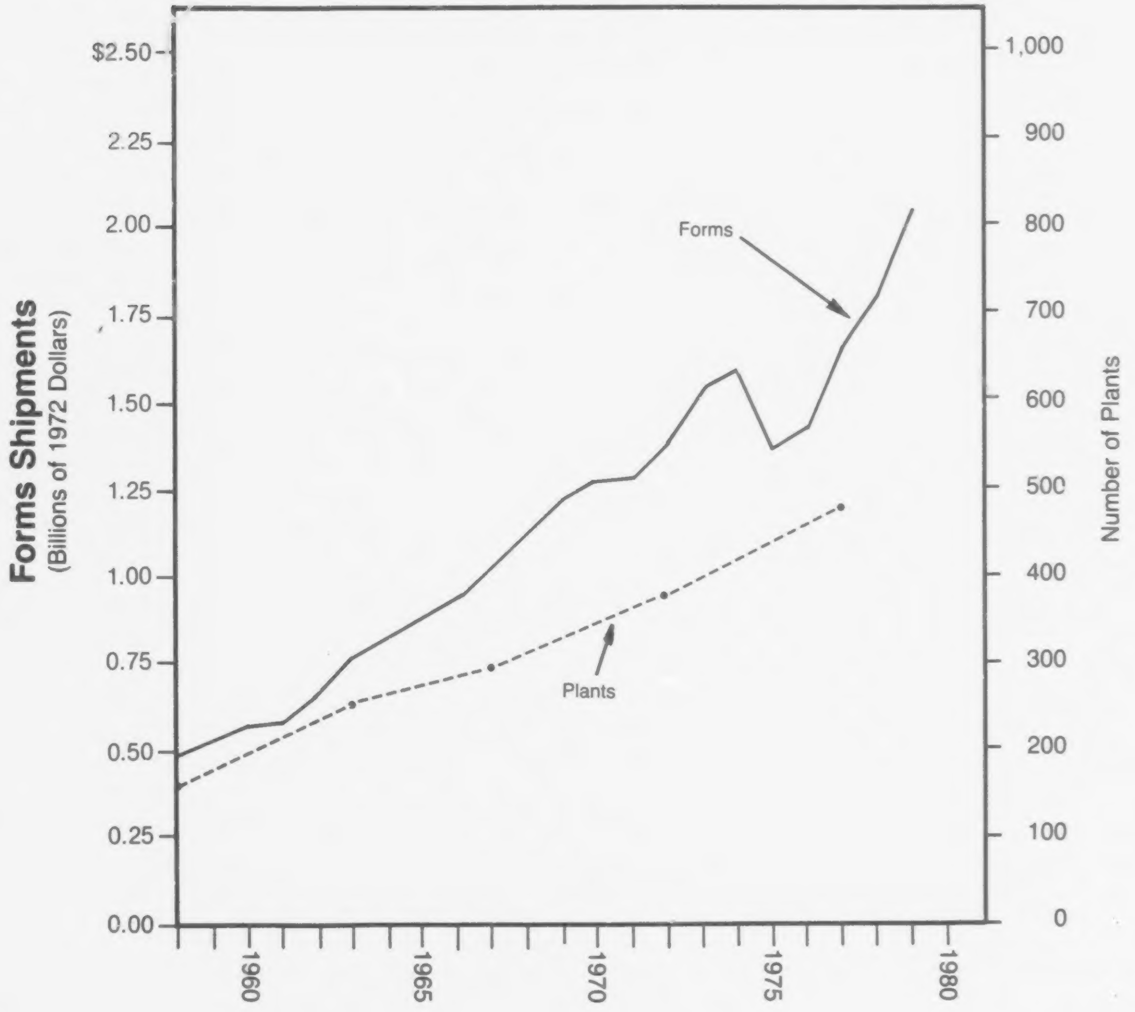


SOURCE: IBFI, U.S. Bureau of Labor Statistics

A more meaningful comparison is obtained by looking at production employee wages in relation to value added. This graph demonstrates that production employee wages have not really kept up with the overall rate of inflation. Therefore productivity improvements in net as opposed to gross terms have been quite good, although the record of the Seventies has been mixed.

FORMS SHIPMENTS
AT CONSTANT DOLLAR VALUE VS. GROWTH IN THE NUMBER OF PLANTS WITH OVER 20 EMPLOYEES

SOURCE: IBFI



Nor has productivity per employee been the only driving force behind the industry's productivity performance. Here we see that even after deflation the volume of forms produced per plant has risen quite dramatically. This effect is *not* due to plants with less than 20 employees as their share of shipments has dropped 25% in relative terms over the same period.

VII. A CONTEMPORARY PROFILE OF THE FORMS INDUSTRY

INDUSTRY PROFILE BY COMPANY SIZE

January 1, 1980

(Millions of Current Dollars at Shipment Values)

Number of Firms (Group)	Number of Firms (Cum.)	Number of Plants (Group)	Number of Plants (Cum.)	Total Dollar Shipments (Group)	Total Dollar Shipments (Cum.)	Size ($ Millions)	Percent of Total	Cumulative Percent
3	3	65	65	1,361.1	1,361.1	$150+	36.2%	36.2%
4	7	27	92	476.3	1,837.4	$100-150	12.7%	48.9%
13	20	67	159	701.3	2,538.7	$50-100	18.6%	67.5%
14	34	18	177	276.8	2,815.5	$15-50	7.4%	74.9%
18	52	25	202	201.0	3,016.5	$8-15	5.3%	80.2%
89	141	99	301	427.7	3,444.2	$3-8	11.4%	91.6%
479	620	495	796*	317.0	3,761.2	$0-3	8.4%	100.0%

SOURCE: IBFI

*Approximately 20 very small plants were not included in this tally.

CONCENTRATION RATIOS: BY PERCENTAGE OF TOTAL SHIPMENTS

	1979	1972
Largest 4 Firms:	41.2%	45%
Largest 8 Firms:	50.7%	54%
Largest 20 Firms:	65.4%	66%
Largest 50 Firms:	74.9%	78%

SOURCES:

1979: IBFI
1972: U.S. Dept. of Commerce

1980 SALES RESULTS
BY COMPANY SIZE

Firm Size by Annual Sales	Percent Increase Over 1979[1]	Total Sales for Group[2]
$3 million & under	7.6%	$ 341.2
$3-$8 million	8.2%	462.9
$8-$15 million	5.6%	212.3
$15-$50 million	10.5%	305.9
$50-$100 million	11.8%	784.3
$100 million & up	13.2%	2,080.2
TOTAL, ALL FIRMS	11.3%	4,186.8

[1] Shipment values, current dollars.

[2] Data for firms with sales of $50 million per year and under is from IBFI; data for firms with sales of more than $50 million is from CBEMA and from public sources.

SHIPMENTS BY PRODUCT AND COMPANY SIZE, 1980

(Millions of 1980 Dollars)

Company Size:	Continuous Custom:	Continuous Stock:	Unit Sets:	Salesbooks:	Total:
$3 million & under	67.5	12.6	252.9	8.2	341.2
$3-$8 million	181.3	25.3	240.9	15.4	462.9
$8-$15 million	104.1	19.7	80.2	8.3	212.3
$15-$50 million	127.2	84.5	79.8	14.4	305.9
$50-$100 million	297.0	266.8	177.3	43.2	784.3
$100 million & up	880.8	622.8	492.0	84.6	2,080.2
TOTAL, ALL FIRMS	1,657.9	1,031.7	1,323.1	174.1	4,186.8

INDUSTRY-CONCENTRATION BY PRODUCT, 1979

	4 biggest Firms	8 biggest Firms	20 biggest Firms	50 biggest Firms
Unit Sets	33%	42%	55%	68%
Custom Continuous	50%	60%	73%	85%
Stock Continuous	63%	73%	85%	94%
Sales & Other Manifold Books	56%	72%	90%	97%

SOURCE: IBFI

INDUSTRY SPECIALIZATION, 1980

(All Figures are Millions of 1980 Dollars)

	Unit Sets		Custom Continuous		Stock Continuous	
	Dollars	Plants	Dollars	Plants	Dollars	Plants
Total Current Dollar Value at Shipment Value	1,323.1	N/A	1,657.9	N/A	1,031.7	N/A
Produced By Plants For Which This Product is Primary	994.7	282	1,248.0	121	972.9	73
(Above as Percent of Total)	75.2%	N/A	75.3%	N/A	94.3%	N/A
Produced By Plants For Which This Product Accounts For Over 75% of Shipments By Value	651.2	156	824.5	54	508.1	35
(Above as Percent of Total)	49.2%	N/A	49.7%	N/A	49.2%	N/A

SOURCE: U.S. Department of Commerce and IBFI

DISTRIBUTION OF U.S. FORMS MANUFACTURING PLANTS BY NUMBER OF EMPLOYEES AND CURRENT DOLLAR VALUE OF SHIPMENTS

1977[1]

Number of Employees:	Number of Plants:	Production Employees:	Value of Shipments:[2]
1-19	317/39.9%	1,700/ 5.1%	118.6/ 4.1%
20-49	217/27.3%	5,100/15.4%	375.8/13.0%
50-99	131/16.5%	6,600/19.9%	576.9/19.9%
100-249	100/12.6%	11,500/34.6%	1,147.1/39.7%
250-499	25/ 3.1%	6,000/18.1%	512.4/17.7%
500 +	5/ 0.6%	2,300/ 6.9%	162.9/ 5.6%
	795 100.0%	33,200 100.0%	2,893.7[3]100.0%

---

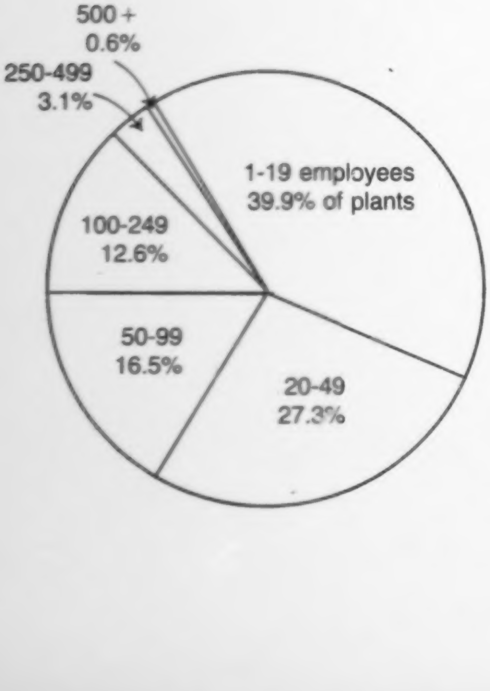
[1] SOURCE: Census of Manufactures. Although the number of plants has increased to about 820, the impact upon relative percentage shares would be negligible.

[2] In millions of current dollars at shipment values.

[3] Note that this data is concerned only with plants whose primary product is forms. Forms made by other printers are excluded from this total while non-forms products manufactured in forms plants are included.

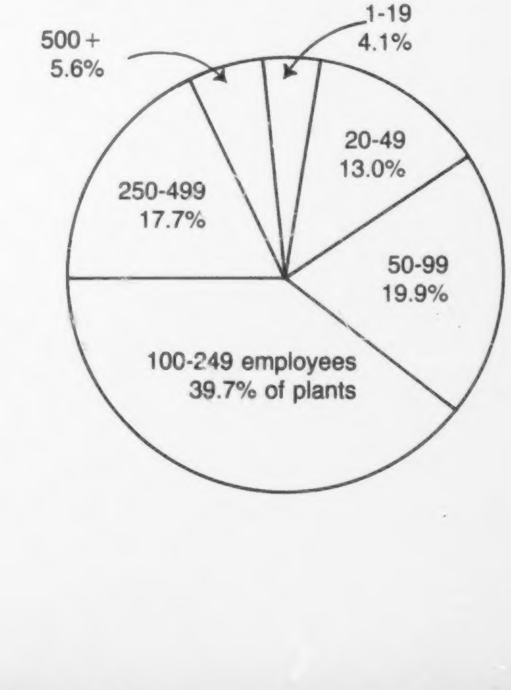
SIZE OF PLANT

Showing Number of Employees and Percentage of Plants in that category



SHIPMENTS DISTRIBUTED BY PLANT SIZE

Showing Plant Size By Number of Employees, and Percentage of Shipments Generated By That Group



VIII. FORMS SUPPLY AND DEMAND BY GEOGRAPHIC REGION AND INDUSTRIAL SECTOR

During the last twelve months IBFI has utilized its own data base, CBEMA sales figures, Department of Commerce statistics (both published and unpublished), new survey material and public records to compile new and original breakdowns of forms demand and supply. This material is presented in the following pages.

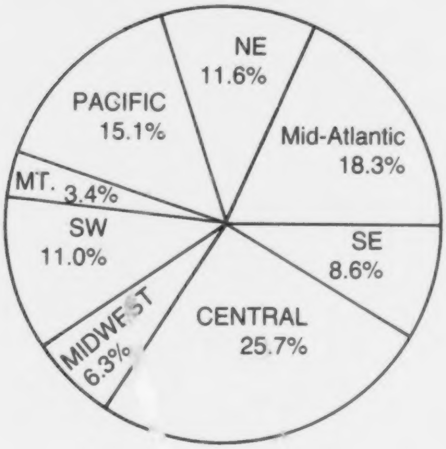
The numbers are largely self-explanatory, but some comments are in order. First, it is clear that the geographic center of the industry is in the central/midatlantic region. Both of these areas are net exporters of forms, especially those which are technically more demanding. Secondly, the northeast and the southeast are net importers of forms. In the case of the former this situation is a result of unfavorable cost structures and resistance by organized labor to labor-saving equipment and management procedures. In the case of the latter, the economic growth of the sunbelt has simply outstripped the growth of its forms manufacturing capacity.

The graphs illustrating this data over time show that the central region runs little risk of losing its pre-eminent position in our industry. Growth in other regions' forms shipments has been more or less in line with those regions' rates of economic growth, but with the extremes smoothed out. Thus the northeast has done better than might be expected while the southeastern forms industry has not boomed to the same extent as its regional economy. The sharpest growth rates have really been in the southwest and pacific regions, although the midatlantic region has shown surprising long-term strength.

These statistics are as accurate as a sustained and professional research effort could make them. The estimated margin of error in a given region is plus or minus 5%. However, this data will be revised and updated whenever new or better information is found, so do not be surprised to find changes in future editions of this material. Feedback is encouraged.

REGIONAL MANUFACTURE OF FORMS

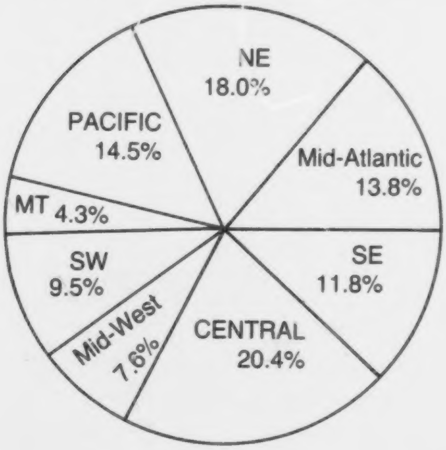
(By Current Dollar Shipment Value)



Source: IBFI

REGIONAL CONSUMPTION OF FORMS

(By Current Dollar Shipment Value)



Source: IBFI

(1980 ESTIMATES)

CONTINUOUS FORMS DEMAND BY GEOGRAPHIC REGION AND INDUSTRIAL SECTOR

(Millions of 1980 Dollars at Shipment Values)

	NE:	MID-ATL:	SE:	CENT:	MID-WEST:	MT:	SW:	PACIFIC:	GRAND TOTAL:
Agriculture, Mining & Construction	5.5	7.8	7.2	9.2	4.5	4.3	9.9	8.1	56.5
Non-Durable Manufacturing	43.8	41.4	38.2	42.5	15.2	8.1	19.0	20.4	228.6
Durables Manufacturing	74.8	52.4	37.0	128.5	28.7	11.5	30.9	58.5	422.3
Transportation	15.6	12.2	10.8	17.3	8.0	4.3	10.4	12.8	91.4
Utilities	30.7	24.5	22.6	36.8	14.2	8.3	18.5	24.6	180.2
Wholesale Trade	22.6	14.9	15.3	24.9	12.2	5.5	15.1	18.6	129.1
Retail Trade	13.8	15.1	10.2	17.5	6.9	4.0	8.7	12.6	88.8
Financial Services	99.0	62.4	55.0	88.0	36.2	21.4	45.9	84.3	492.2
Service Industries	124.7	88.5	74.8	126.1	49.7	27.9	59.4	97.1	648.2
Government	54.6	53.8	46.8	61.0	27.8	19.9	36.0	52.4	352.3
TOTAL	485.1	373.0	317.9	551.8	203.4	115.2	253.8	389.4	2,689.6
UNIT SETS	239.8	182.8	155.3	267.8	101.2	56.6	125.5	194.1	1,323.1
SALESBOOKS, OTHER	29.8	23.8	22.0	35.7	13.7	7.2	18.0	23.9	174.1
TOTAL FOR REGION	754.7	579.6	495.2	855.3	318.3	179.0	397.3	607.4	4,186.8

SOURCE: IBFI

NOTE: The geographic regions used in these estimates were determined by careful study of regional economic data and transaction flows. They are:

NORTHEAST: New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Maine.

MIDATLANTIC: New Jersey, Pennsylvania, Maryland, Virginia, District of Columbia, Delaware, West Virginia.

SOUTHEAST: North Carolina, South Carolina, Tennessee, Mississippi, Alabama, Georgia, Florida.

CENTRAL: Kentucky, Ohio, Indiana, Illinois, Michigan, Wisconsin.

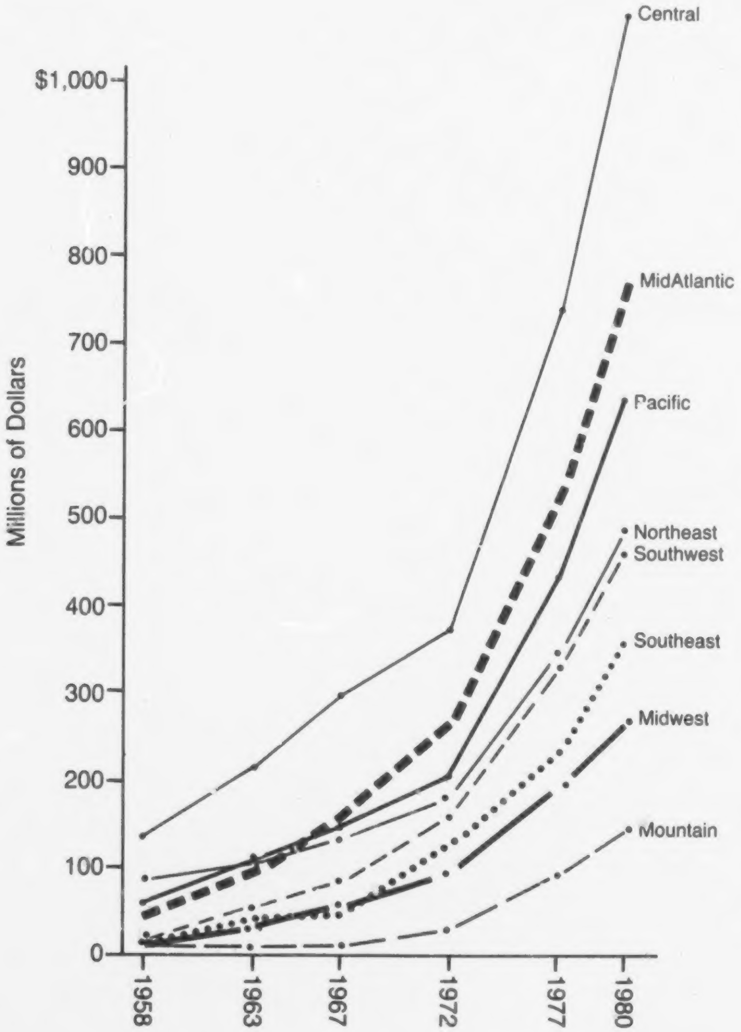
MIDWEST: Kansas, Missouri, Nebraska, Iowa, Minnesota, North Dakota, South Dakota.

SOUTHWEST: Oklahoma, Arkansas, Louisiana, Texas.

MOUNTAIN: Arizona, Colorado, Utah, Montana, Idaho, Wyoming, New Mexico.

PACIFIC: Washington, Oregon, California, Nevada, Hawaii, Alaska.

GROWTH OF FORMS
SHIPMENTS BY REGION
(Measured at Current Dollar Shipment Value)



Source: IBFI

GEOGRAPHIC BREAKDOWN OF FORMS MANUFACTURING

(Shipment Values, Millions of Current Dollars)

	TOTAL PLANTS	PLANTS WITH 20+ EMPLOYEES (Production)	TOTAL FORMS SHIPMENTS
NORTHEAST	**117**	**67**	**485.1**
New Hampshire	5	4	41.4
Vermont	3	3	58.1
Massachusetts	13	11	43.6
Rhode Island	5	5	12.6
Connecticut	17	11	99.2
New York	74	33	230.2
MIDATLANTIC	**119**	**73**	**766.2**
New Jersey	34	17	85.7
Pennsylvania	50	32	382.3
Maryland	15	9	129.2
Virginia	15	11	112.7
D.C. & Delaware	3	2	3.5
West Virginia	2	2	52.8
SOUTHEAST	**110**	**60**	**360.7**
North Carolina	28	16	66.9
South Carolina	5	2	34.2
Tennessee	15	7	17.9
Mississippi	3	-	11.6
Alabama	5	4	73.2
Georgia	30	17	98.1
Florida	24	14	58.8
CENTRAL	**167**	**101**	**1,076.3**
Kentucky	4	3	43.2
Ohio	36	21	339.1
Indiana	12	7	80.1
Illinois	61	40	354.8
Michigan	34	16	119.5
Wisconsin	20	14	139.6
MIDWEST	**70**	**45**	**260.5**
Kansas	14	10	66.7
Missouri	20	11	67.3
Nebraska	4	4	20.1
Iowa	14	11	72.9
Minnesota	15	9	31.7
North & South Dakota	3	-	1.8

	TOTAL PLANTS	PLANTS WITH 20+ EMPLOYEES (Production)	TOTAL FORMS SHIPMENTS
SOUTHWEST	**75**	**51**	**461.6**
Oklahoma	9	6	69.7
Arkansas	5	4	24.4
Louisana	11	8	30.8
Texas	50	33	336.7
MOUNTAIN	**29**	**12**	**142.4**
Arizona	13	4	24.2
Colorado	6	3	43.5
Utah	5	4	52.6
Montana, Idaho, Wyoming & New Mexico	5	1	22.1
PACIFIC	**132**	**77**	**634.0**
Washington	13	6	35.3
Oregon	15	9	81.2
California	101	62	512.9
Nevada &	2	-	4.6[1]
Hawaii	1		
TOTAL	**819**	**486**	**4,186.8**

[1] Shipments have been merged to avoid disclosing sales of individual plants.

GEOGRAPHIC BREAKDOWN OF PRODUCT SHIPMENTS

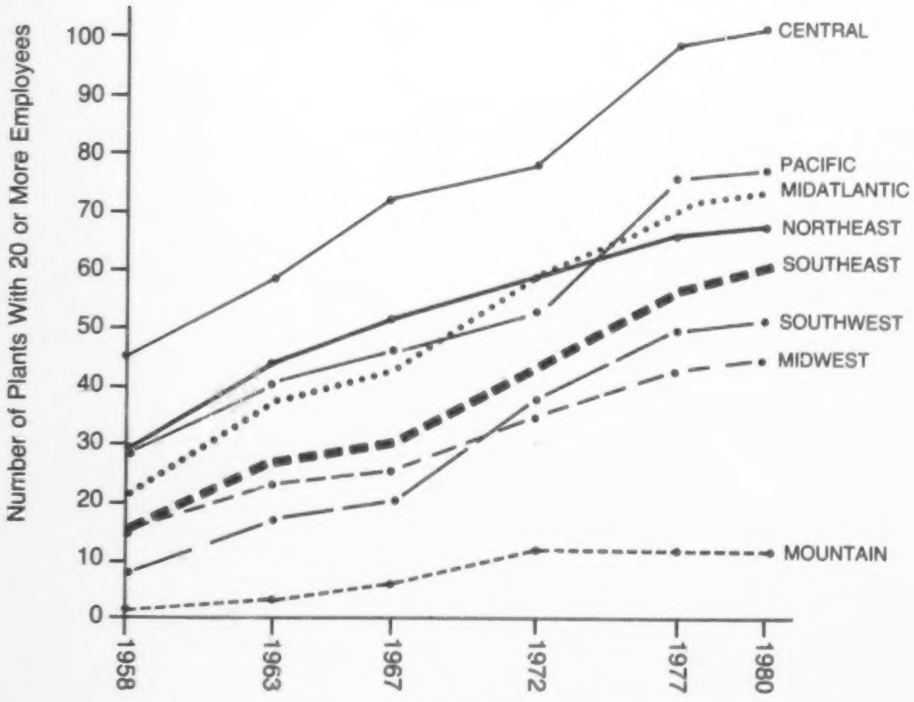
(Shipment Values, Millions of Current Dollars)

	UNIT SETS	CONTINUOUS CUSTOM	CONTINUOUS STOCK	SALESBOOKS AND OTHER
NORTHEAST	186.7	185.9	95.4	17.1
MIDATLANTIC	176.6	251.6	301.2	36.8
SOUTHEAST	150.7	177.0	20.1	12.9
CENTRAL	286.4	467.1	283.8	39.0
MIDWEST	119.3	113.4	18.0	9.8
SOUTHWEST	147.0	170.7	124.5	19.4
MOUNTAIN	80.5	58.6	3.1	0.2
PACIFIC	175.9	233.6	185.6	38.9
TOTAL	**1,323.1**	**1,657.9**	**1,031.7**	**174.1**

SOURCE: These estimates are derived from a combination of IBFI survey data, the U.S. Census of Manufactures, public reports and various private research reports.

GROWTH OF FORMS MANUFACTURING

Capacity by Region



Source: IBFI

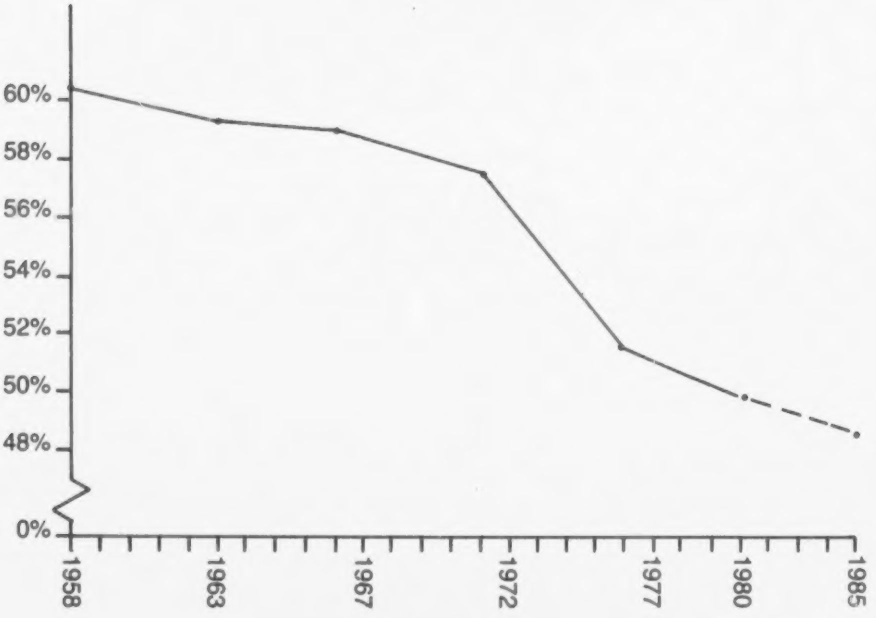
IX. INFLATION AND PROFITABILITY: AN IBFI REPORT

Prices, money and the interaction of the two with economic growth whether in an industry or a whole economy comprise one of the most complicated topics in economic or business studies. What is worse, this region is so complex and so poorly charted that many of us think we understand it when we do not. To quote a leading expert in the field, "only one fellow in ten thousand understands the currency question, and I meet him every day."

Inflation has affected the forms industry in several ways. One of them is value added.

VALUE ADDED AS PERCENT OF SHIPMENTS

(At Current Dollar Values)

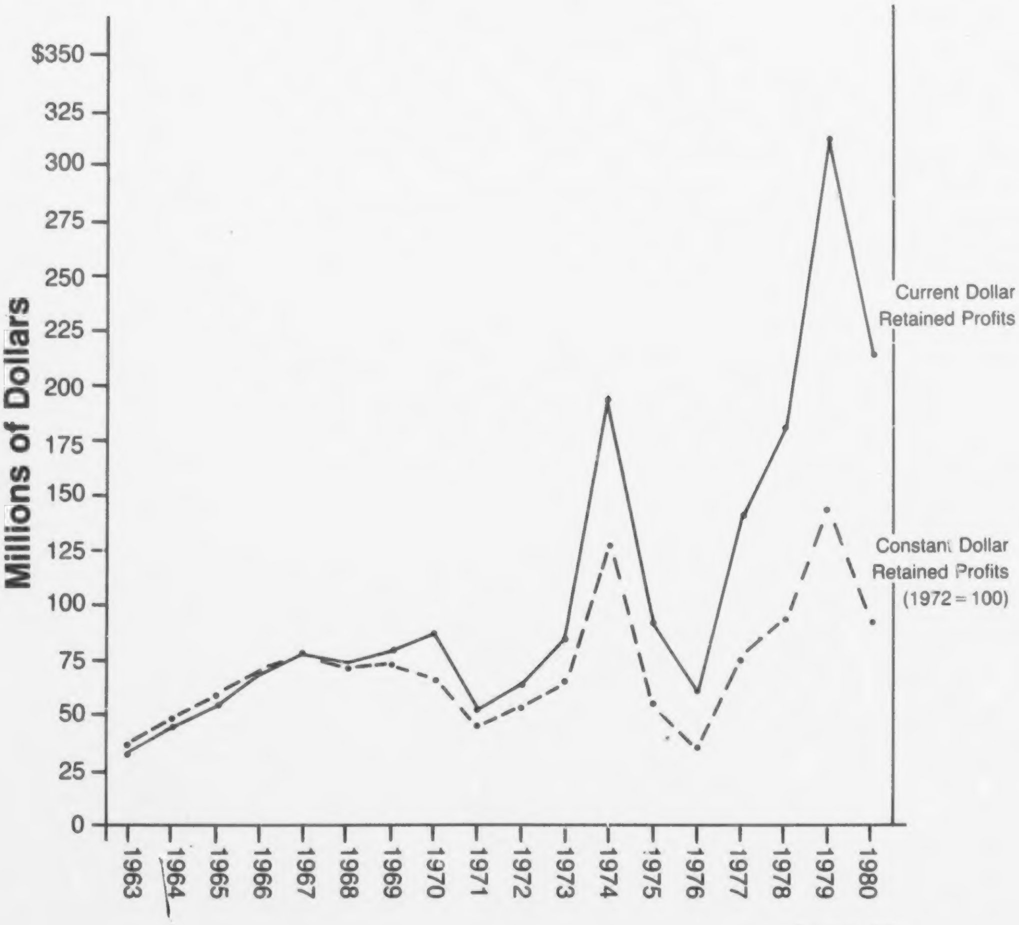


SOURCES: 1958-1977; US Government data.
1978-1980; IBFI Ratio Studies.
1981-1985; IBFI projection.

This graph shows clearly that from the mid-Fifties until the beginning of the Seventies the industry's value added held up well. The slight slippage evident in those years - a slippage of only about two percentage points - can be attributed to gradual rises in industry-wide manufacturing efficiencies. Such rises are common in an industry whose products are rapidly being brought to maturity. During the Seventies, however, value added plummetted. The reason: in an industry as competitive as ours it simply has not been possible to pass on the full impact of inflation in the industry's costs of production to the final consumer.

Admittedly, current dollar industry profits have increased to some extent as increases in the cost of inputs have forced some price rises. However, profitability has in general failed to keep pace with inflation. Even more serious is the uncertainty and wide fluctuations often caused by inflation. Both of these impacts are demonstrated in the following graphs.

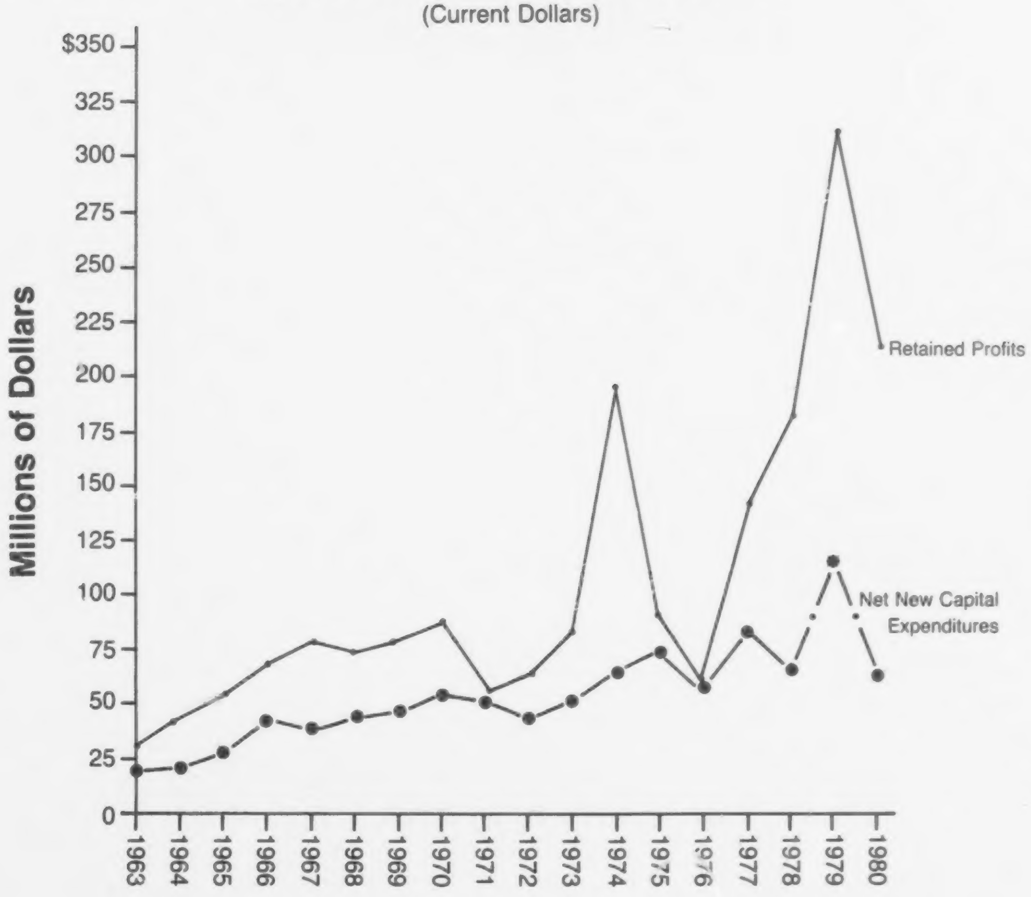
FORMS INDUSTRY
RETAINED PROFITS
(In Current and Constant Dollars)



Source: IBFI

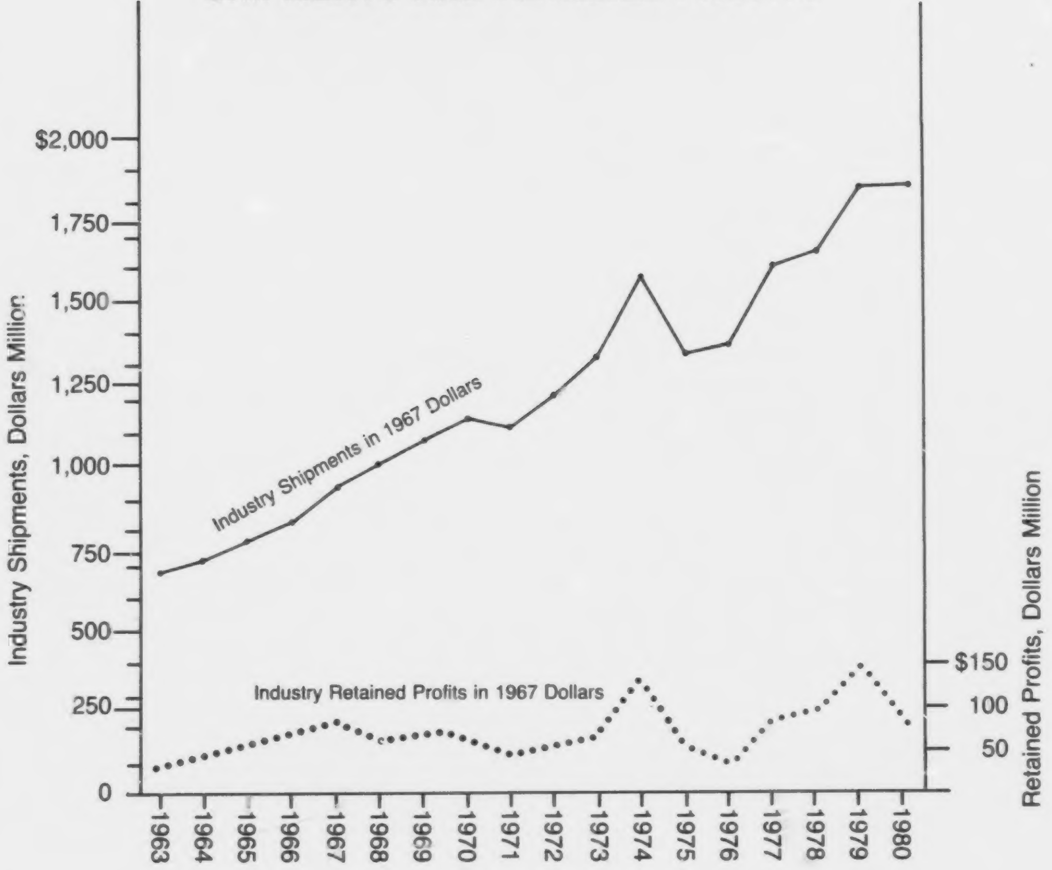
RETAINED PROFITS Vs. NEW CAPITAL EXPENDITURES

(Current Dollars)



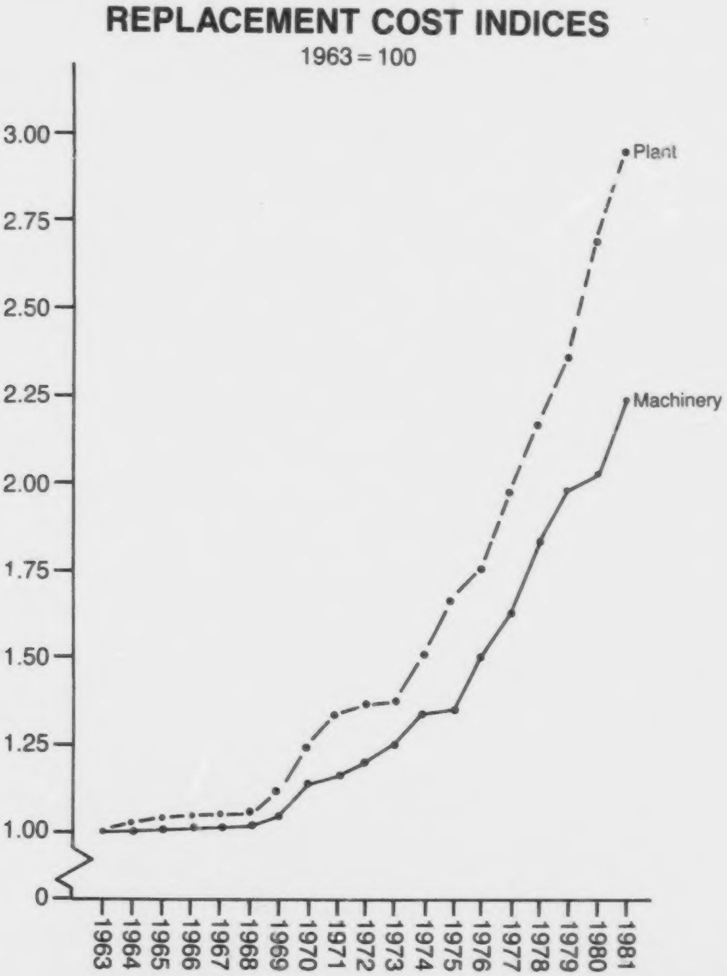
Source: IBFI

A COMPARISON OF INDUSTRY SHIPMENTS AND RETAINED PROFITS



Source: IBFI

Additionally, the cost of land and machinery has risen sharply - often even more rapidly than other prices, especially during the last ten years. *These rises make it essential to realize that standard depreciation schedules have lost their original meaning.*



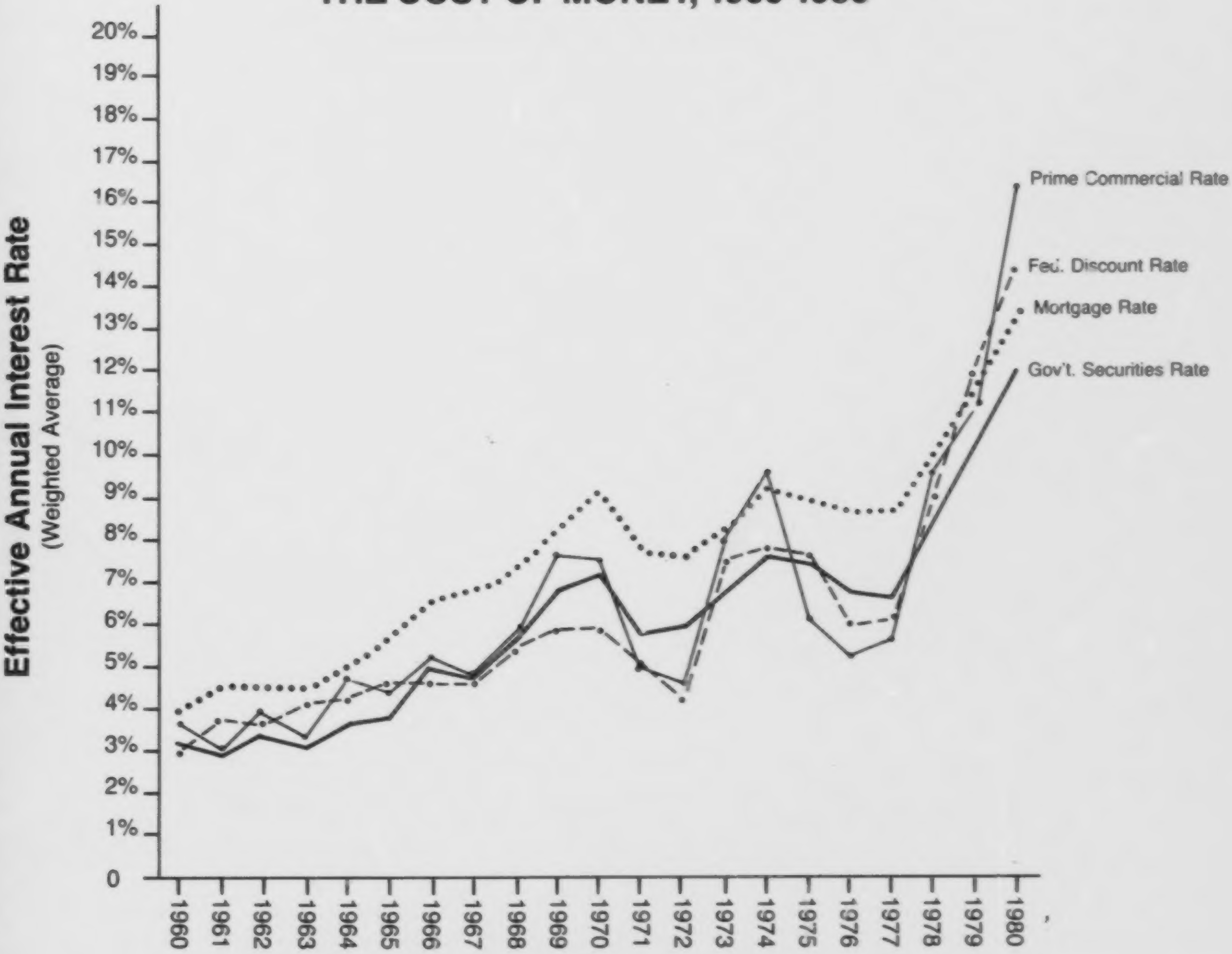
Source: Marshall Valuation Tables, as interpreted by Marsh and McLennan, Insurance Protection Consultants, in "Guide to the Replacement Value of Your Commercial Property". Note that these indices reflect replacement cost only and do not include the increased cost of new equipment that is due to qualitative improvements.

In examining profitability it is important to make the distinction between "book" profits and "economic" profits. Book profit is simply the difference between the cost of production (including the depreciation of the original purchase price, capital assets) and total sales. Economic profit takes the concept an important step further; it means *only those book profits which are above and beyond the profit needed to keep the firm in business.* In this context, nearly all the book profits made in this industry are plowed back, either in the form of capital investment or as returns to investors or as a necessary reward to the entrepreneur. In fact, many firms have *not* made enough book profits during the last several years to remain in business a decade down the road - *but this serious trend has been cloaked by inflation* as profits have inflated right along with costs and sales.

Chief executives too often are reluctant to deflate their profits into "real" dollars. Their motives in failing to do so are understandable but very short-term. Without deflating profits to their true levels and without using replacement-cost accounting methods, the true return on their investment becomes seriously overstated. This erosion could be critical in the coming years, for the industry is entering a period during which competitive forces will require increasing investments in more sophisticated equipment.

Another factor in the determination of true profit levels is the cost of money. This cost is now much greater than it has been during any previous peacetime period in American business history. More to the point, while the average level of interest rates is bound to drop during the next eighteen months, it is unlikely that the cost of money will drop below double figures for any extended period in this decade. These sharply higher rates of interest first of all increase the cost of doing business. A more subtle effect is that they increase the profit level needed to sustain an industry in the long run. That is because any business must offer rates of return comparable to the long-term rate of interest.

THE COST OF MONEY, 1960-1980



(Sources: *Federal Reserve Bulletin* and *Annual Statistical Digest* of the Federal Reserve; *Historical Statistics of the U.S.*, GPO; *An Analytical Record of Yields and Yield Spreads*, Salomon Brothers, N.Y.)

Looked at in this light, very few manufacturing concerns in this or any other American industry really made a profit in 1980, and 1981 should be even weaker. That is not to say, however, that a factory must turn a profit which in every year meets or exceeds the average rate of short-term interest; such a comparison is like equating the rates on 90-day treasury bills with the rates on 30-year mortgages. It does mean, however, that over a period of five, ten or thirty years the returns in an industry must be comparable to average rates of interest. The forms industry did well in this regard during the Sixties and just about held its own during the Seventies. The Eighties have so far been a different story.

APPENDIX

SELECTED HISTORICAL INDUSTRY STATISTICS

APPENDIX A.

Sales Data, Manifold Business Forms

(Millions of 1980 Dollars at Shipment Values)

	Unit Sets	Custom Continuous	Stock Continuous	Sales And Other Books	TOTAL
1958	159.6	150.4	18.8	45.2	374.0
1963	265.5	239.4	53.9	39.6	598.4
1967	361.7	391.9	98.0	44.2	895.8
1970	468.4	493.4	185.0	52.3	1,199.1
1971	486.4	518.9	190.0	47.0	1,242.3
1972	547.3	578.2	204.9	51.5	1,381.9
1973	630.2	733.7	282.1	59.8	1,705.8
1974	776.2	966.1	432.2	78.8	2,253.3
1975	781.6	944.9	413.7	78.3	2,218.5
1976	849.1	970.3	521.1	84.8	2,425.3
1977	958.1	981.1	633.9	129.5	2,702.6
1978	1,065.1	1,194.8	680.3	137.9	3,078.1
1979	1,248.7	1,466.9	891.4	154.2	3,761.2
1980	1,323.1	1,657.9	1,031.7	174.1	4,186.8

APPENDIX B.

Selected Data From Census Years

(Millions of 1980 Dollars at Shipment Values)

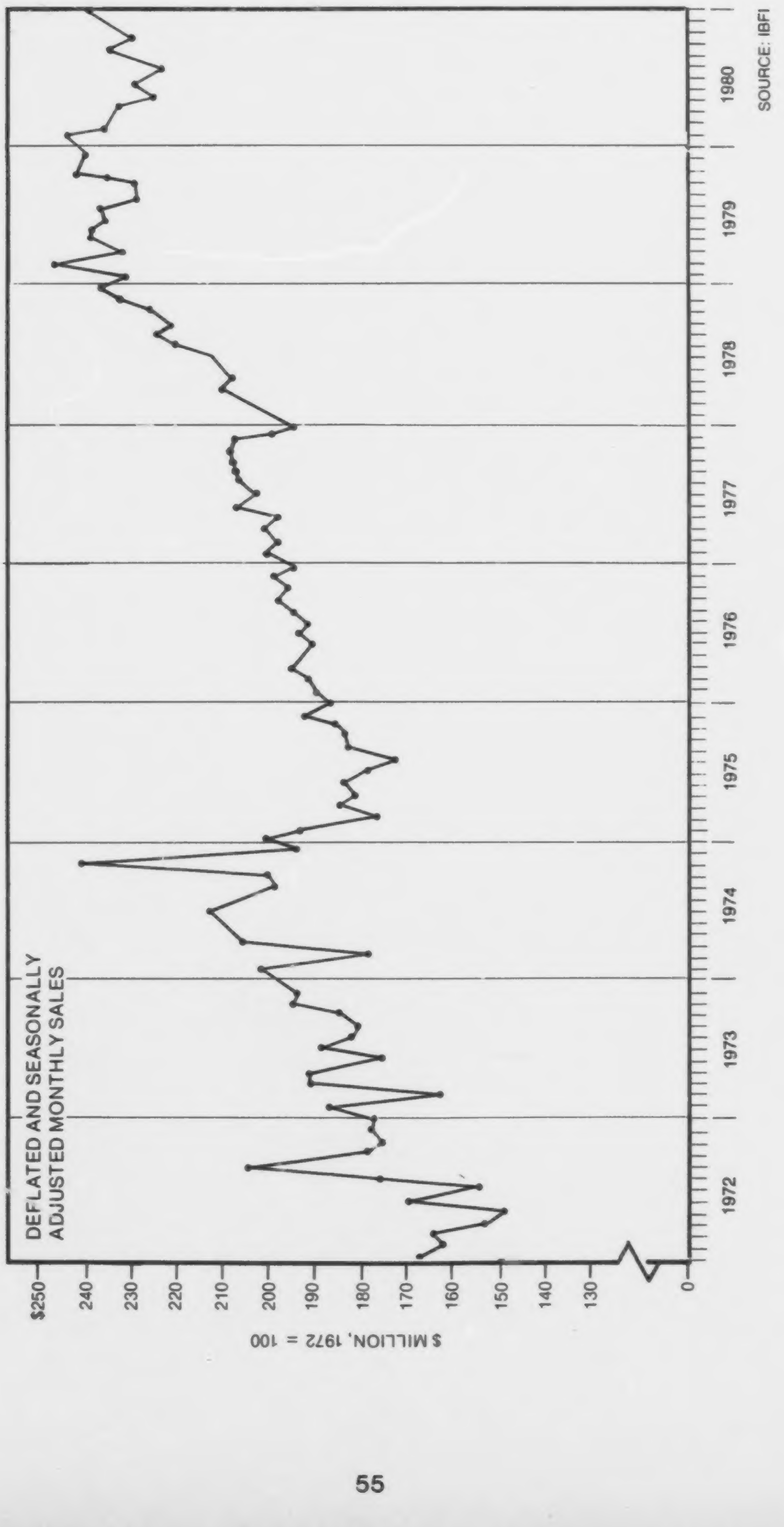
	Total Forms Manufactured	Of Which Manufactured By Forms Industry	Of Which Made By Other Industries	Non-Forms Made By Forms Industry	Total Industry Shipments
1958	374.0	357.0	17.0	35.3	392.3
1963	598.4	545.0	53.4	93.0	638.0
1967	895.8	809.2	86.6	123.1	932.3
1972	1,381.9	1,267.9	114.0	161.8	1,429.7
1977	2,702.6	2,559.4	143.2	334.6	2,894.0

APPENDIX C.

Growth of Forms Industry Employment

	Total Number of Companies	Number of Plants	Plants With 20 or More Employees	Total Number of Employees
1958	*	*	168	23.5
1963	439	502	250	28.8
1967	454	542	295	34.6
1972	533	667	376	38.5
1977	604	795	477	45.3

APPENDIX D.



SOURCE: IBFI

NOTES

International Business Forms Industries, Inc., a worldwide trade association of over 400 forms manufacturers and their suppliers, is dedicated to providing a positive industry environment through programs in management, economic and market research, technical research and manufacturing.

Printing Industries of America, Inc. is the largest trade association in the world meeting the needs of the printing and allied industries. It is composed of the following divisions:-Master Printers of America and the Union Employers of America; the following departments:-Association Relations, Government Affairs, Management Services (including Insurance) and Public Relations; the following special interest sections:-Binding Industries of America, Conference Board of Major Printers, Financial Printers Association, Graphic Arts Equipment and Supply Dealers Association, Graphic Arts Marketing Information Service, Association of Graphic Arts Consultants, Graphic Communications Computer Association, International Book Printers Association, International Thermographers Association, Label Printing Industry Section, Lithographic Preparatory Services Association, Magazine Printers Section, National Composition Association, National Association of Lithographic Plate Manufacturers, Non-Heatset Web Section, Printing Industry Credit Exchange, Security Lithographers Section, Web Offset Section and Yearbook Printers Association. PIA has local and regional affiliated associations operating in the major graphic arts centers in the United States. Affiliated International Association: International Business Forms Industries, Inc.

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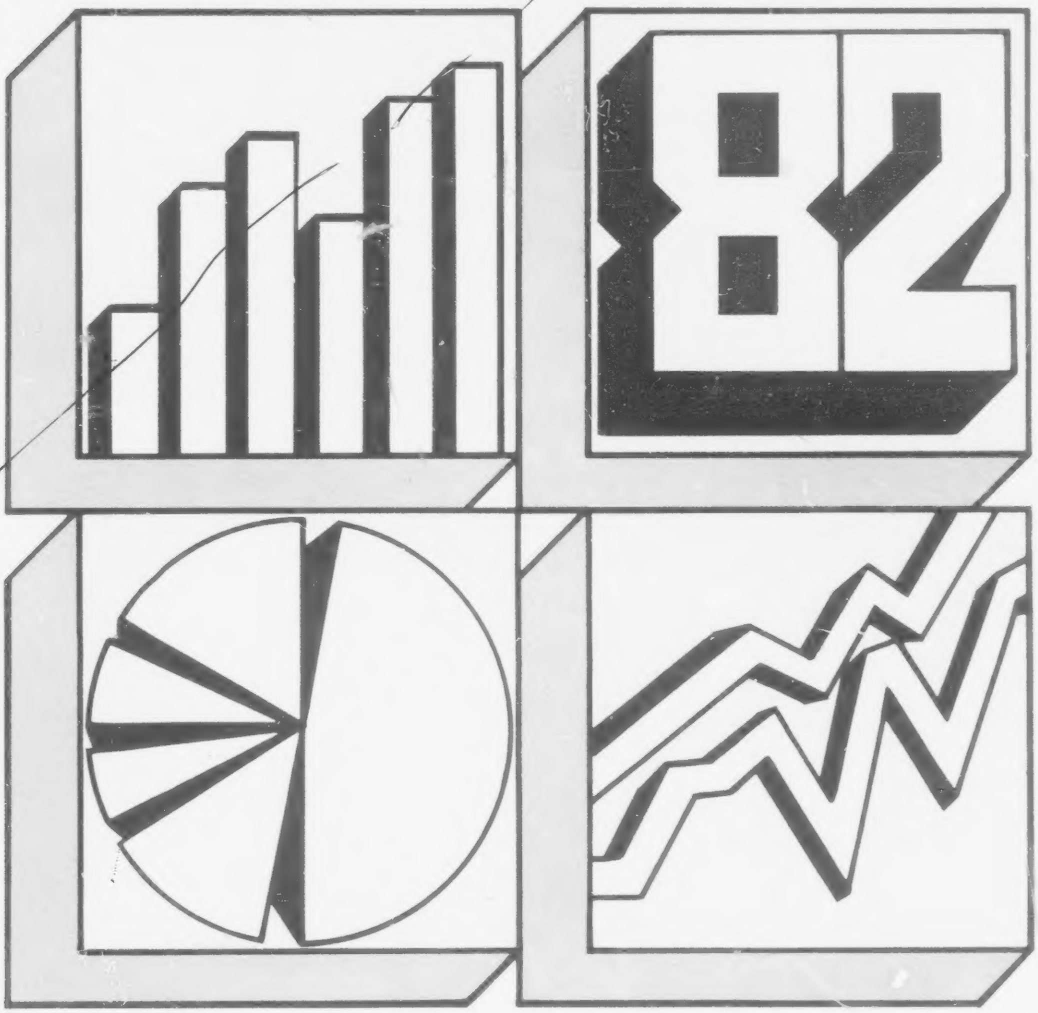

The Present & Future of the Forms Industry

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PERSPECTIVE

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This is the 1982 edition of an annual publication prepared at the direction of the IBFI Economic Research Committee for the benefit of the industry and its customers. Each edition contains a detailed review of the previous year's results and a five-year demand forecast. In addition, the results of any new research undertaken by the staff during the preceding twelve months are presented in these pages.

The author is responsible for all of the estimates and opinions in this volume. All charts and graphs are the work of the author. Every effort has been made to ensure accuracy but it of course cannot be guaranteed.

Norman McLeod

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[1] Some of the tables and graphs in the Executive Summary are taken from other sections in the text. This material is listed only once. In this list, such duplicates are placed in the section to which they most properly belong.

Executive Summary

In 1981, both the industry and the economy remained in the trough of the deepest recession of recent times. Given that undeniable fact, industry results for the year were in some ways surprisingly good. With the dollar value of sales exceeding 1980 levels by 9.9% and the "real" gain weighing in at 2.9%, sales volumes were an improvement over the IBFI forecast of 2.5% real growth and certainly led the forms industry to outperform most other US manufacturing sectors.

1981 BUSINESS FORMS SALES REAL GROWTH VS. INFLATIONARY GROWTH

(Dollar Values in Millions)

	1980	1981	Total Gain $/%	"Real" Gain $/%
Custom Continuous	$1,657.9	$1,823.7	$165.8/10.0%	$46.8/2.8%
Stock Continuous	$1,031.7	$1,186.5	$154.8/15.0%	$94.7/9.2%
Unit Sets	$1,323.1	$1,417.2	$ 94.1/ 7.1%	– ($12.5)/(0.9)%
Salesbooks	$ 174.1	$ 175.7	$ 1.6/ 0.9%	– ($6.5)/ – (3.7)%
TOTAL	$4,186.8	$4,603.1	$416.3/9.9%	$122.5/2.9%

SOURCE: IBFI

NOTE: All sales data in this report are factory shipment values unless otherwise specified.

This growth in sales was perhaps all the more unexpected in light of an exceptionally weak and disappointing first quarter.

1981 BUSINESS FORMS SALES BY QUARTER AND PRODUCT

(In Millions Of Current Dollars)

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	YEAR
Custom Continuous	426.7	488.8	437.7	470.5	1,823.7
Stock Continuous	293.1	297.8	288.3	307.3	1,186.5
Unit Sets	320.3	379.8	364.2	352.9	1,417.2
Salesbooks	39.7	38.1	55.0	42.9	175.7
TOTAL	1,079.8	1,204.5	1,145.2	1,173.6	4,603.1

SOURCES: IBFI, CBEMA, U.S. Dept. of Commerce

As far as the various major product lines were concerned, stock continuous forms led the growth, carrying on a tradition of several years running. Custom continuous products turned in a performance close to the industry average, while unit sets and salesbooks both registered small declines. Profits, however, were hit much more by the recession than were sales. Overcapacity was especially noticeable in stock continuous; it has been reliably estimated that sufficient capacity is in place to meet anticipated demand for this product for the next two years. Average levels of interest rates remained essentially unchanged from the previous year. At the same time, forms companies were experiencing significant cost pressures as they tried to adjust to a less inflationary environment, in which a softening market put heavy pressure on prices while paper prices and wage costs continued to escalate. The final result was that average pre-tax profits as a percentage of sales dropped from 9% to 6%.

IBFI FORECAST BY PRODUCT AND QUARTERS
1982-1983

(In Millions of 1981 Dollars)

	1982				
	1st	2nd	3rd	4th	TOTAL
Custom Continuous	450.2	470.1	485.9	499.9	1,906.1
Stock Continuous	307.8	299.8	318.3	349.6	1,275.5
Unit Sets	313.2	364.9	374.3	391.7	1,444.1
Salesbooks	45.6	39.8	54.8	39.8	180.0
TOTAL	1,116.8	1,174.6	1,233.3	1,281.0	4,805.7

1982 made a very weak beginning and significant improvement cannot realistically be expected until 1983, while the market will not regain any real strength until 1984. Although recovery is expected to be under way by the third quarter of 1982, the conflict between an anti-inflationary monetary policy on the one hand and a debt-ridden fiscal policy on the other hand will preclude a rapid recovery. In fact, it must be admitted that the economic assumptions lying behind the forms forecast presented here are in some degree a representation of faith - faith, that is, that the government will eventually choose between one policy or the other. Nonetheless, there is an enormous amount of pent-up demand in the economy and it can be convincingly argued that the current period is establishing the fundamentals that will allow the US to achieve the sustained economic growth in the Eighties that so frustratingly eluded us during the Seventies.

IBFI FORECAST BY PRODUCT AND QUARTERS
1982-1983

(In Millions of 1981 Dollars)

	1983				
	1st	**2nd**	**3rd**	**4th**	**TOTAL**
Custom Continuous	483.4	507.2	492.7	546.7	2,030.0
Stock Continuous	328.9	362.0	336.7	375.5	1,403.1
Unit Sets	345.9	398.0	379.6	407.2	1,530.7
Salesbooks	47.5	41.8	57.3	40.9	187.5
TOTAL	1,205.7	1,309.0	1,266.3	1,370.3	5,151.3

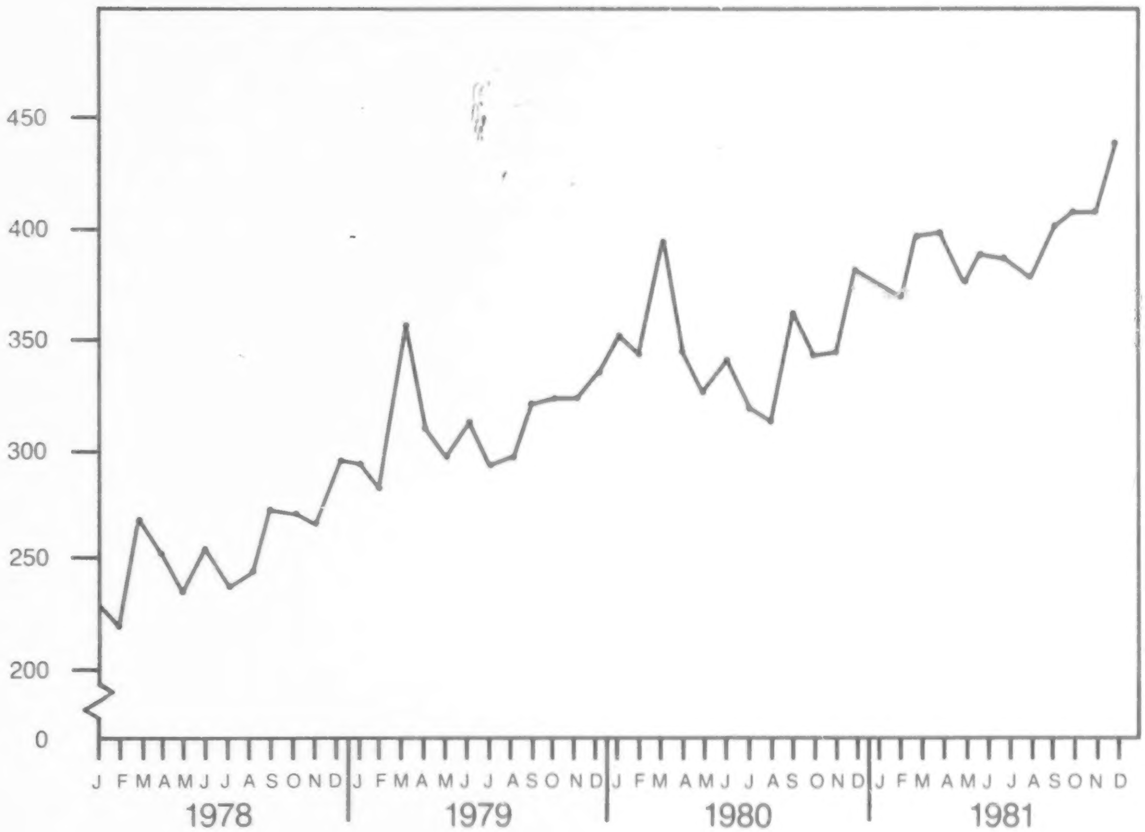
1981 In Review

Despite a weak start in January and February, 1981 sales consistently outperformed the previous year. An exceptional pick-up in November and December, the strength of which surprised nearly everyone, brought the year to an encouraging close given the state of the economy.

MONTHLY FORMS SALES AT SHIPMENT VALUES & CURRENT DOLLARS 1978-1981

MONTHLY SALES

(Millions of Dollars)



Source: IBFI

This overview of a weak beginning, a strong ending and a middling mid-year is accentuated if we look at 1981 sales by product and quarter instead of monthly.

1981 BUSINESS FORMS SALES BY QUARTER AND PRODUCT

(In Millions Of Current Dollars)

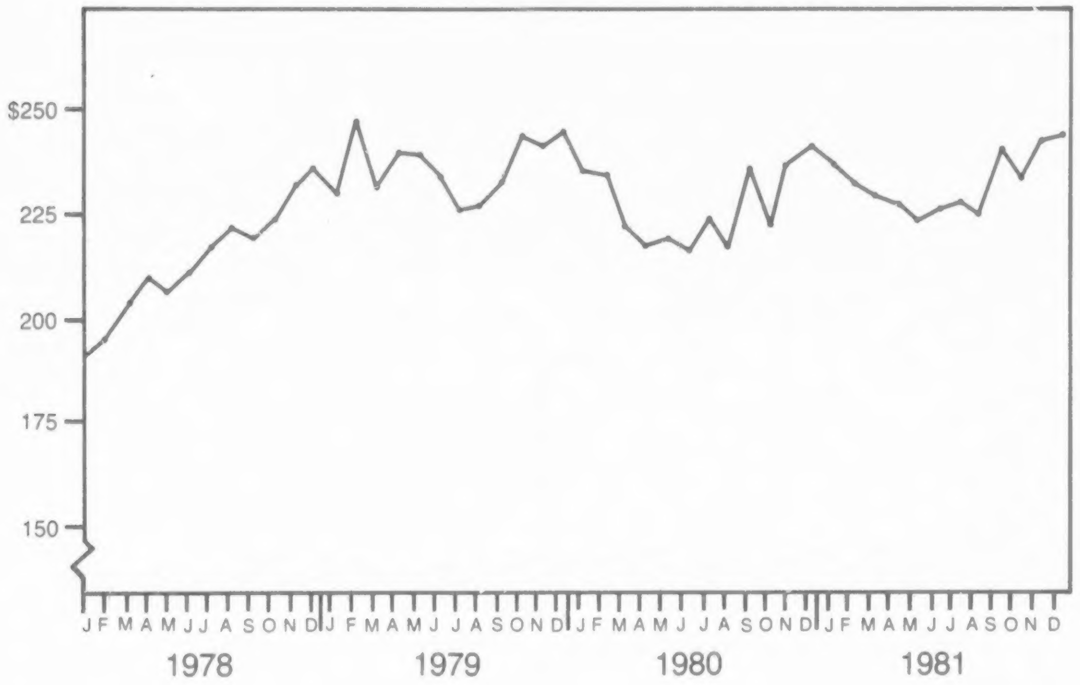
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	YEAR
Custom Continuous	426.7	488.8	437.7	470.5	1,823.7
Stock Continuous	293.1	297.8	288.3	307.3	1,186.5
Unit Sets	320.3	379.8	364.2	352.9	1,417.2
Salesbooks	39.7	38.1	55.0	42.9	175.7
TOTAL	1,079.8	1,204.5	1,145.2	1,173.6	4,603.1

SOURCES: IBFI, CBEMA, U.S. Dept. of Commerce

MONTHLY FORMS SALES, 1978-1981

Deflated and Seasonally Adjusted

(1972 = 100)



Monthly Sales

(Millions of 1972 Dollars)

Source: IBFI

Of course, the underlying softness of the '81 forms market is to some extent disguised by ongoing price inflation. If we look at "deflated" and seasonally adjusted price data, we see a rather different picture. In particular, we see that forms sales underwent a gradual slide until mid-year, and then enjoyed a recovery that was sufficiently sustained to put the year as a whole into the black.

Again, a better view of inflation's impact upon sales for the year as a whole can be obtained from a table.

1981 BUSINESS FORMS SALES
REAL GROWTH VS. INFLATIONARY GROWTH

(Dollar Values in Millions)

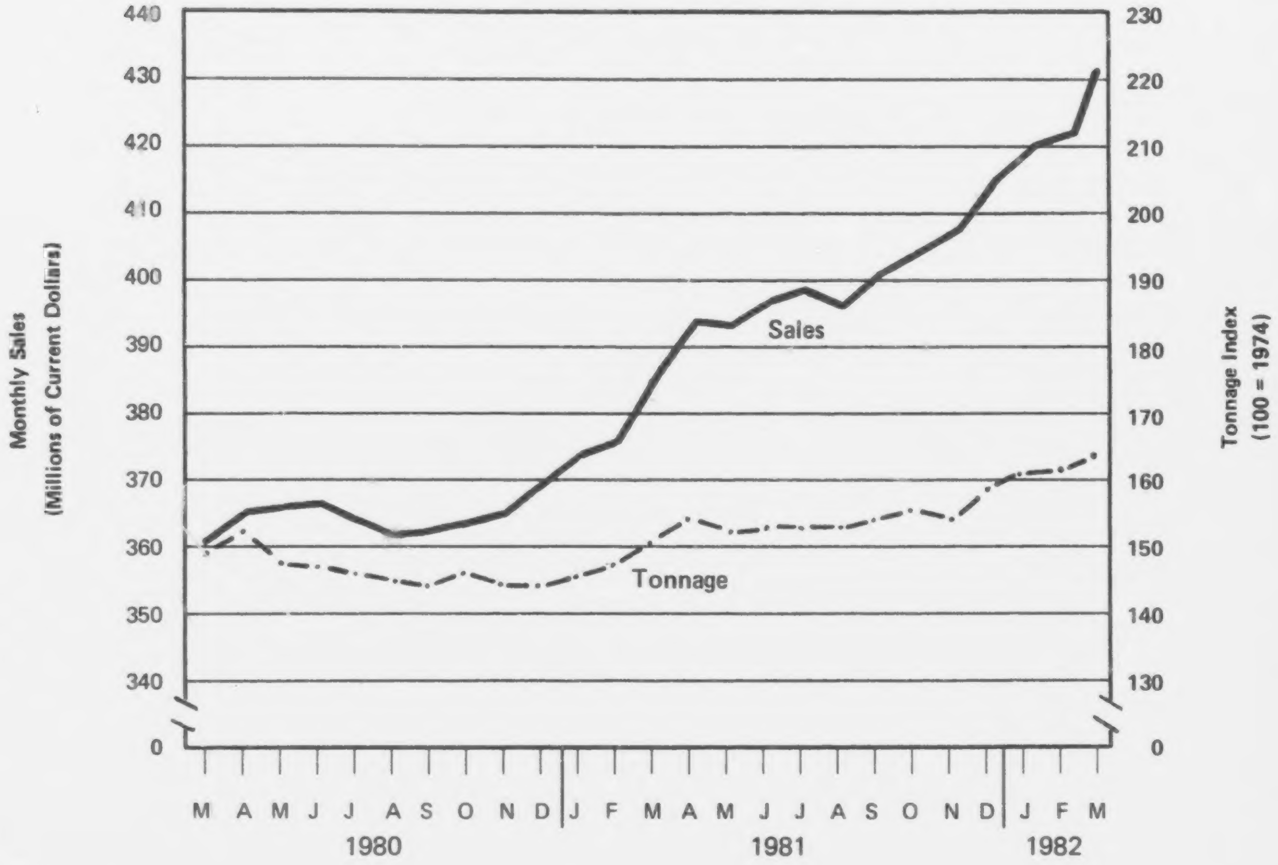
	1980	1981	Total Gain $/%	"Real" Gain $/%
Custom Continuous	$1,657.9	$1,823.7	$165.8/10.0%	$46.8/2.8%
Stock Continuous	$1,031.7	$1,186.5	$154.8/15.0%	$94.7/9.2%
Unit Sets	$1,323.1	$1,417.2	$ 94.1/ 7.1%	–($12.5)/(0.9)%
Salesbooks	$ 174.1	$ 175.7	$ 1.6/ 0.9%	–($6.5)/–(3.7)%
TOTAL	$4,186.8	$4,603.1	$416.3/9.9%	$122.5/2.9%

SOURCE: IBFI

U.S. FORMS INDUSTRY SALES

Monthly Sales at Retail Value
Monthly Index of Tonnage Converted

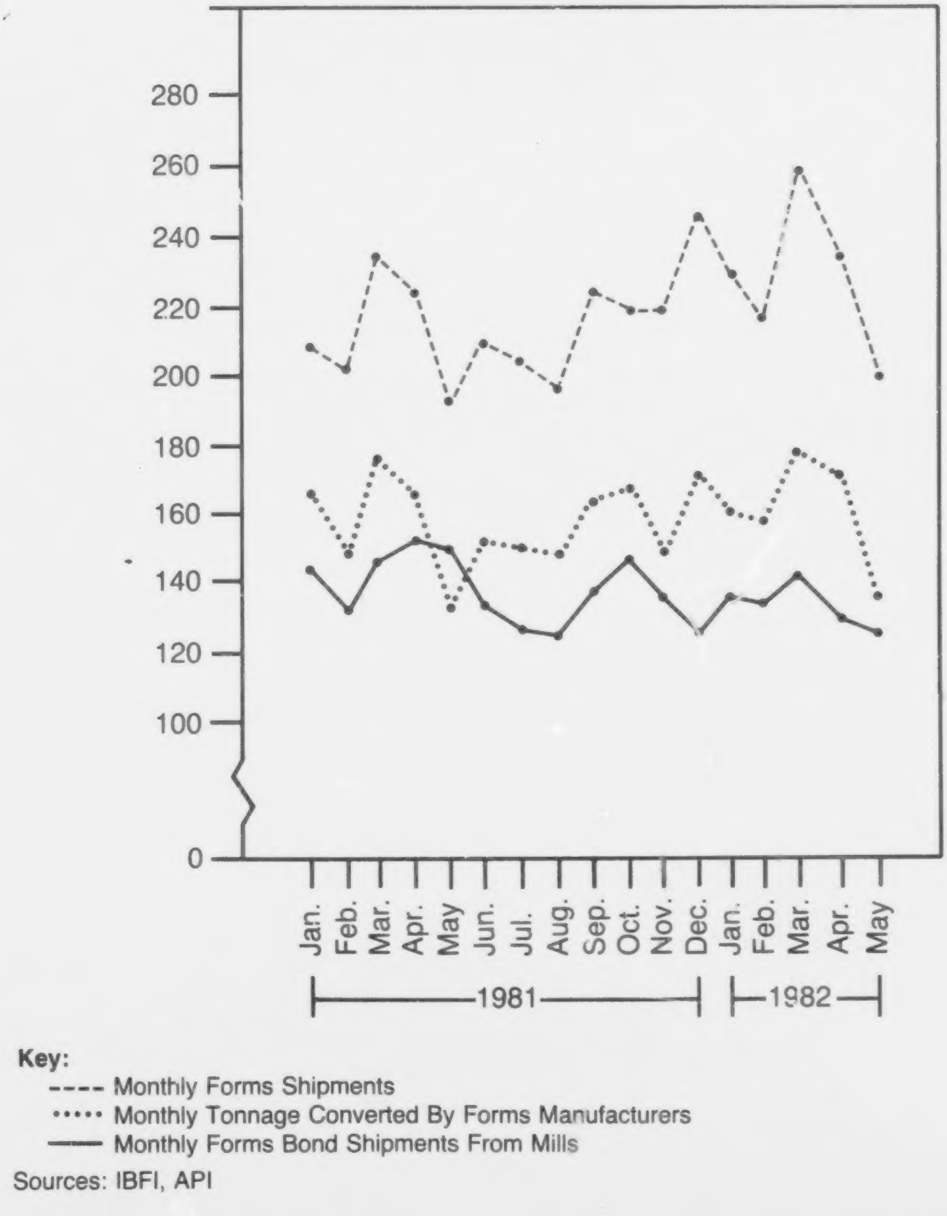
MONTHLY SALES AND TONNAGE INDEX
12 - MONTH WEIGHTED MOVING AVERAGE



Yet another way of looking at sales and tonnage is by pressure-weighted moving averages. This method shows very plainly the impact of inflation upon sales data.

This graph compares the monthly sales data with tonnage data. Movement of these different series were more closely synchronized than is usually the case. Even levels of mill shipments did not lag changes in sales volume to the usual extent.

INDICES OF MONTHLY FORMS SHIPMENTS, MONTHLY TONNAGE CONVERTED BY FORMS MANUFACTURERS AND MONTHLY SHIPMENTS OF FORMS BOND BY MILLS

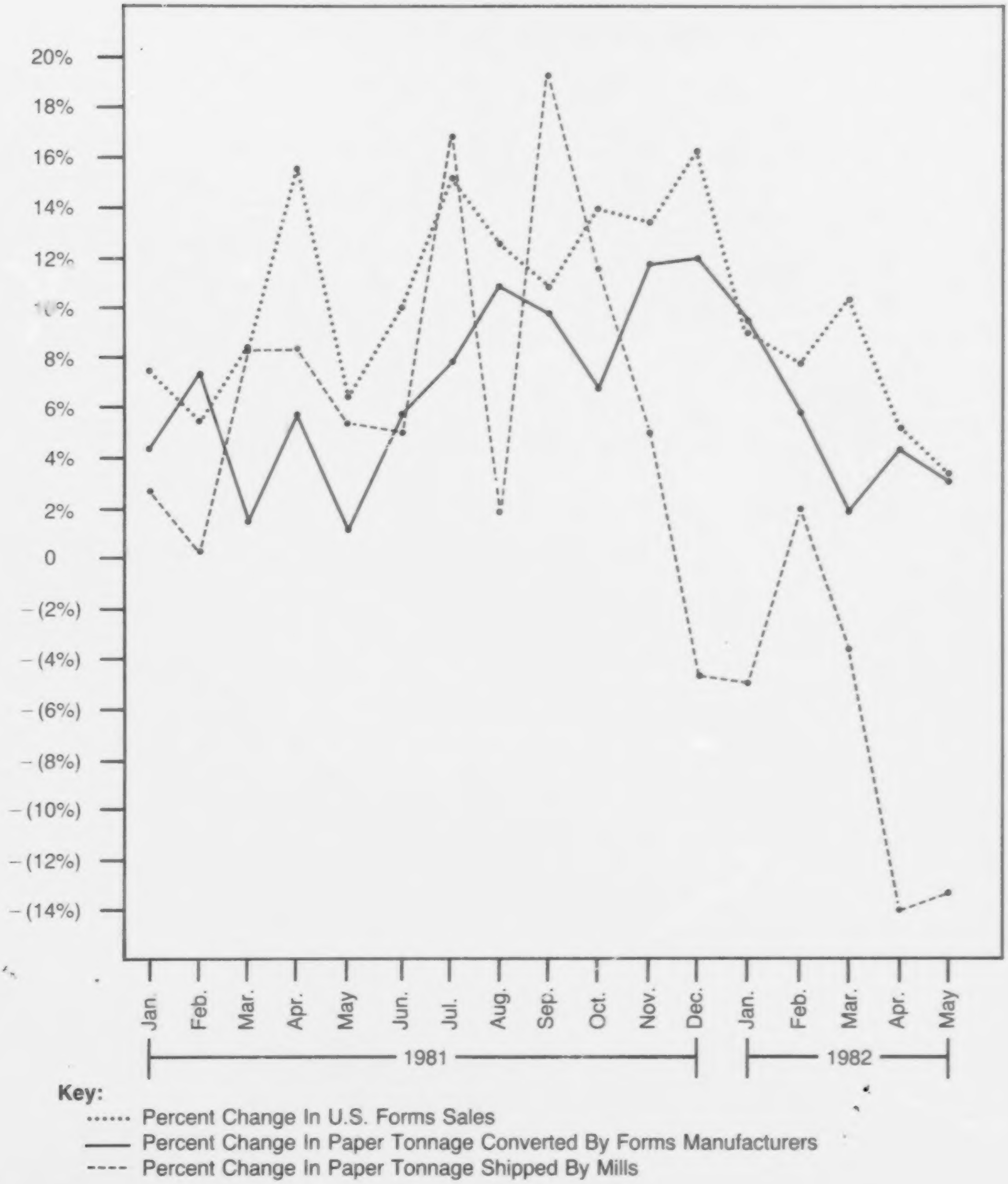


Sources: IBFI, API

Yet another picture can be derived by looking at percentage changes as opposed to dollars and tons. A series that a page earlier seemed smooth and rational suddenly demonstrates the volatility by which the year was marked. Moving into 1982 we see dramatic decreases from more normal year-ago levels.

1981 SALES AND TONNAGE RESULTS

PERCENT CHANGE OVER SAME MONTH LAST YEAR

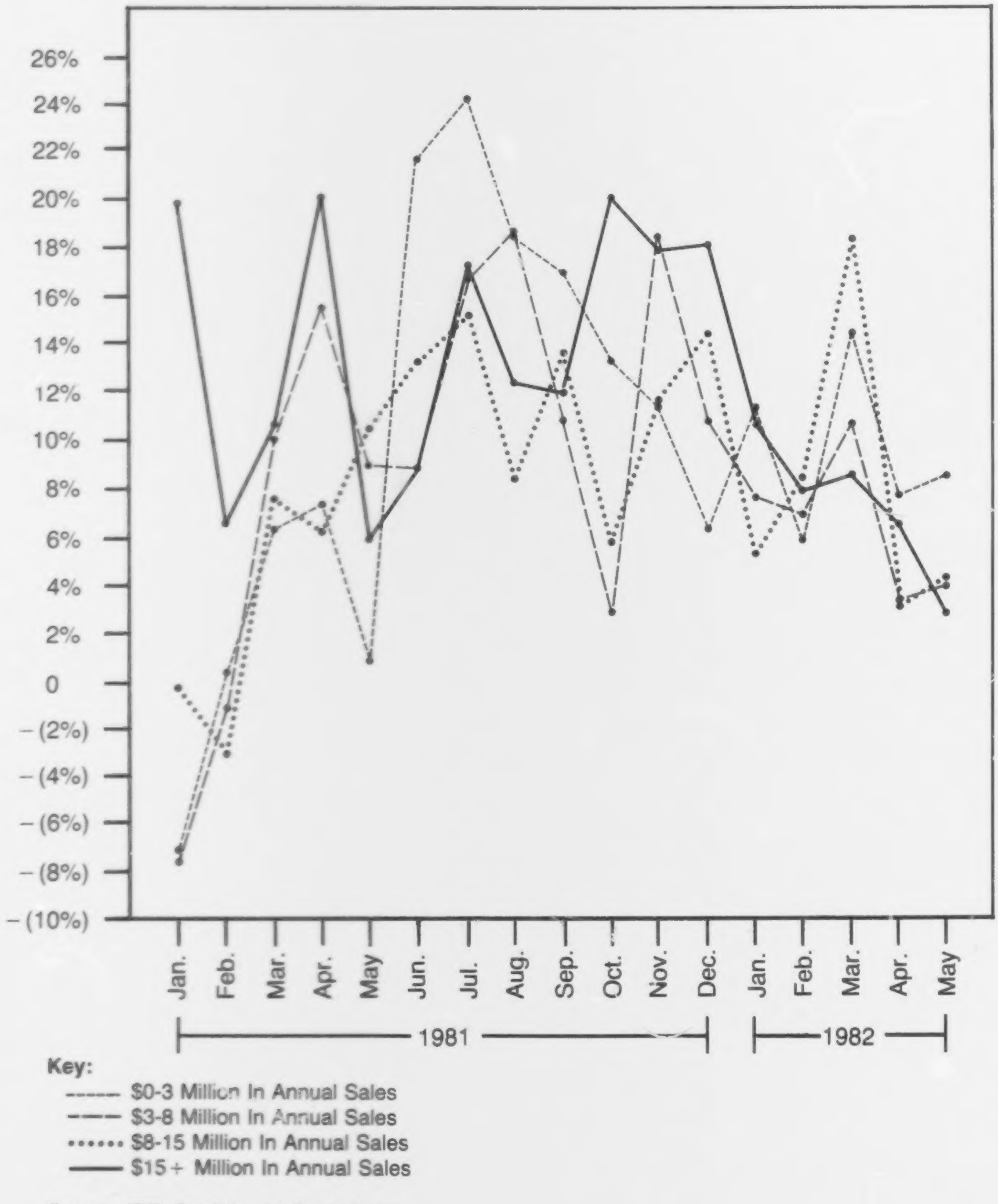


Sources: IBFI, API

In terms of results broken out by size of firm, the recession showed its true depth as firms of all shape and size began experiencing broadly similar sales trends. In this context the comparison between January 1981 and May 1982 can almost be labelled dramatic.

1981 SALES BY SIZE OF FIRM

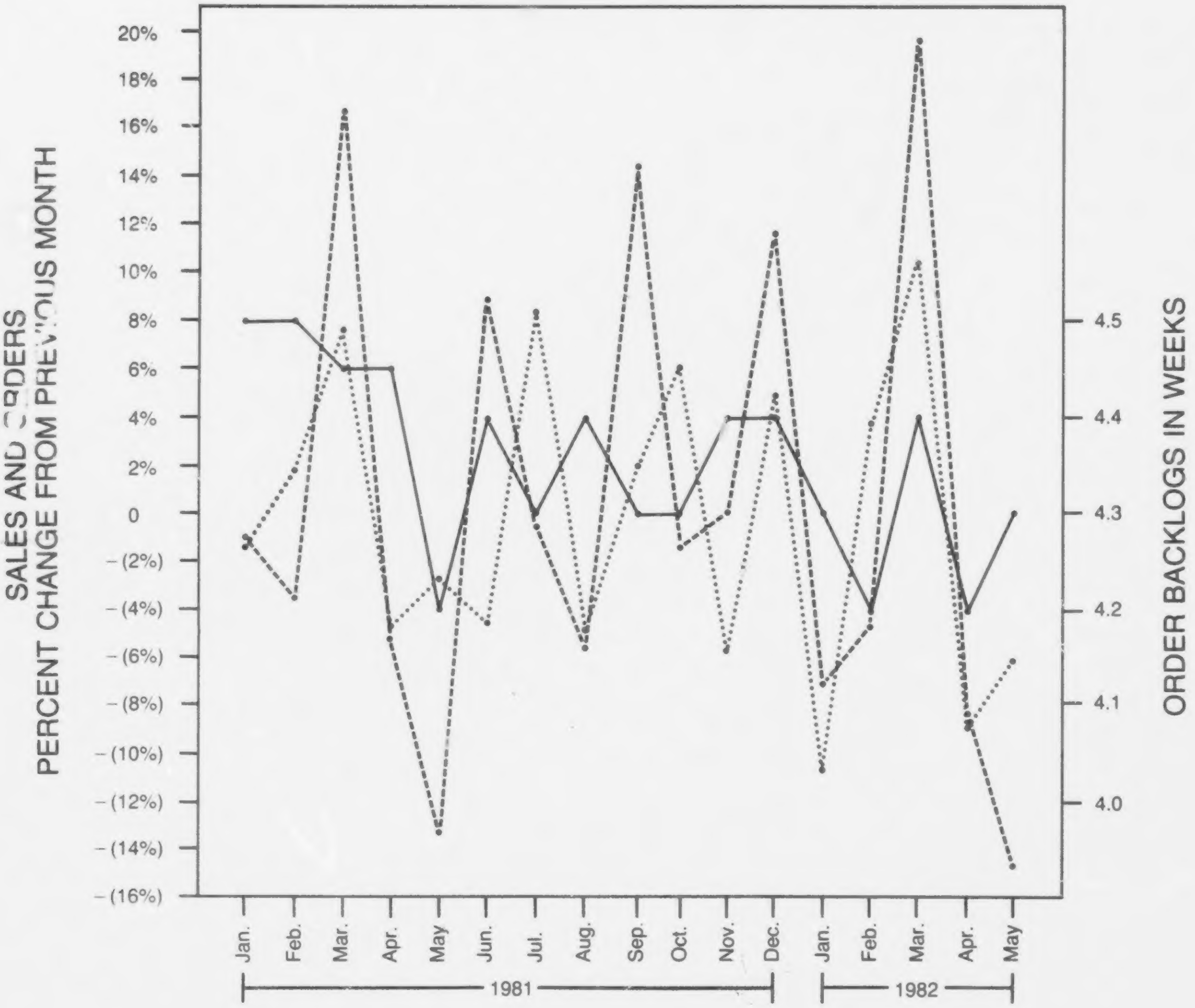
PERCENT CHANGE FROM SAME MONTH LAST YEAR



Source: IBFI Confidential Sales Index

The volatility in sales levels was equalled by abrupt movements in order levels and backlogs. The value of orders booked, usually a reliable leading indicator of the next month's activity, instead demonstrated the extent of underutilized capacity; changes in order levels were almost immediately transformed into increased or reduced shipments.

MONTHLY PERCENTAGE CHANGES IN FORMS SALES, ORDERS BOOKED AND CHANGES IN ORDER BACKLOGS

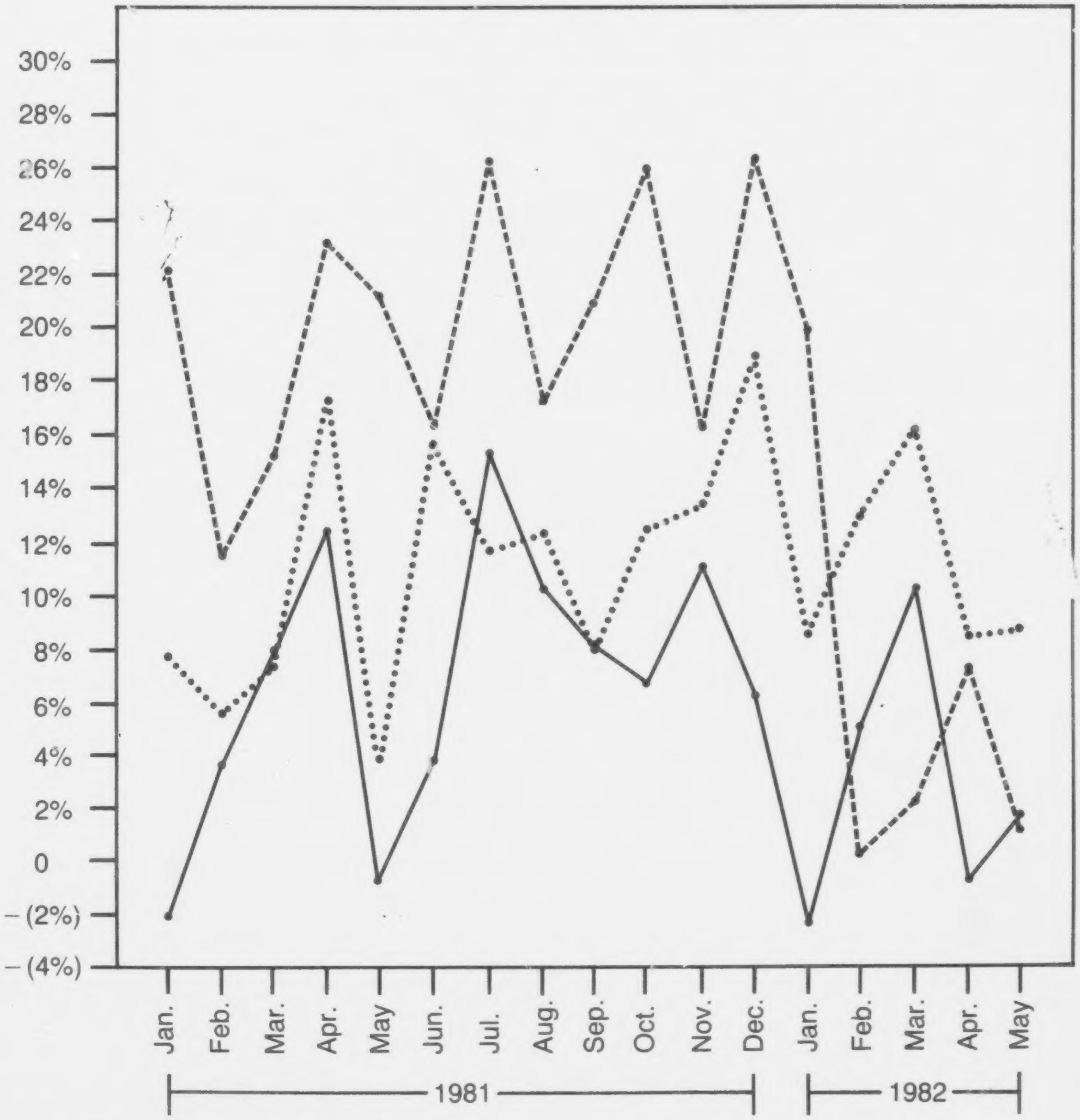


Key:

- - - - - Forms Sales
······ Orders Booked
—— Order Backlogs

Source: IBFI

PERCENTAGE CHANGE IN FORMS SALES BY PRODUCT OVER SAME MONTH PREVIOUS YEAR



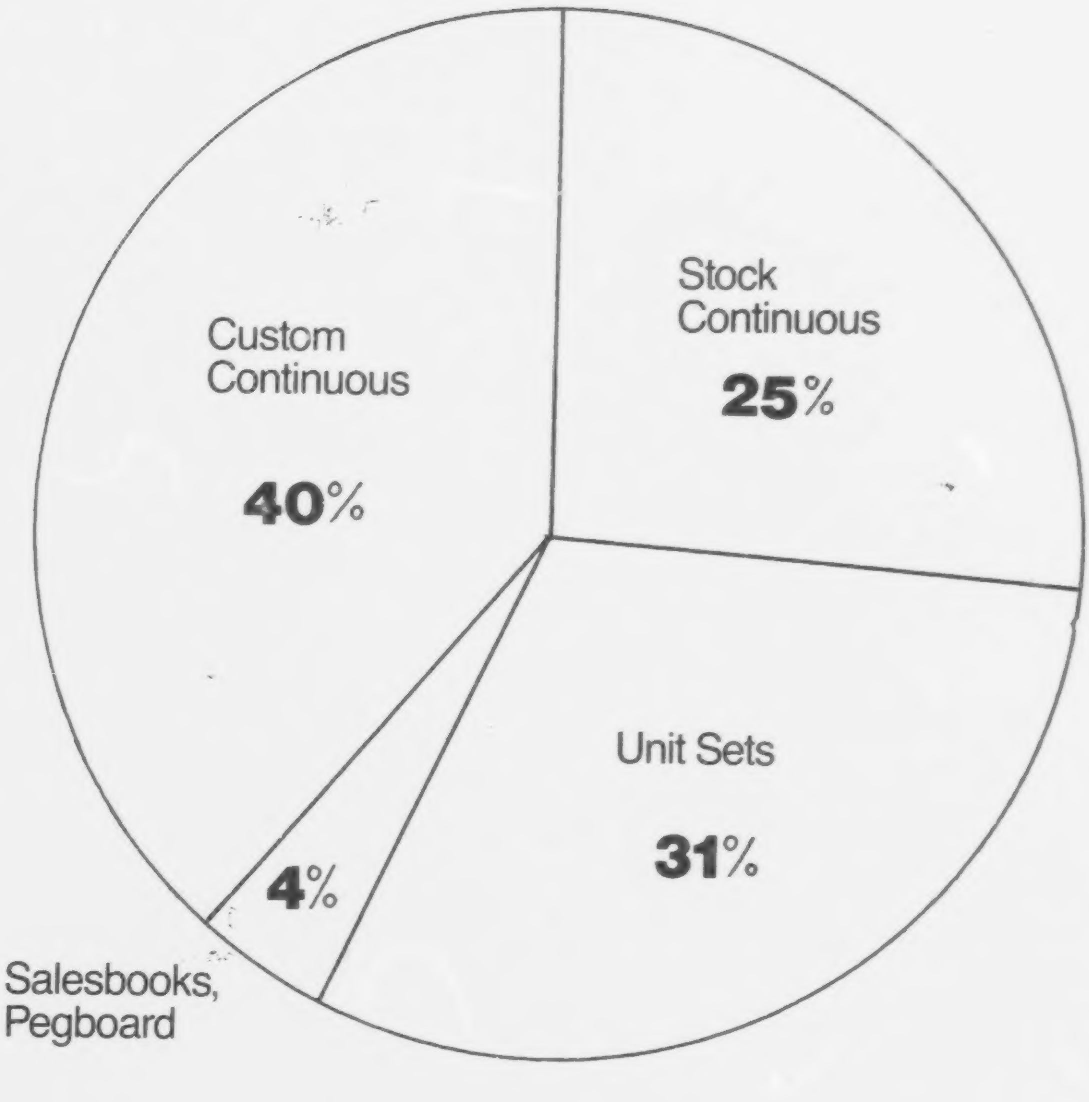
Key:
••••• Custom Continuous
----- Stock Continuous
—— Unit Sets

Source: IBFI

Looking at changes in forms sales by major product area, continuous stock led the pack through 1981. Unit sets were both the weakest and most volatile performer, while continuous custom achieved the most nearly "average" results.

U.S. FORMS INDUSTRY

1981 Product Mix



Here, we step back and look at the year-end sales results in terms of product mix.

Of course, product mix is the area in which company size has the most dramatic impact. As a precursor to examining that impact, let us first take a look at the current profile of the U.S. forms industry's structure.

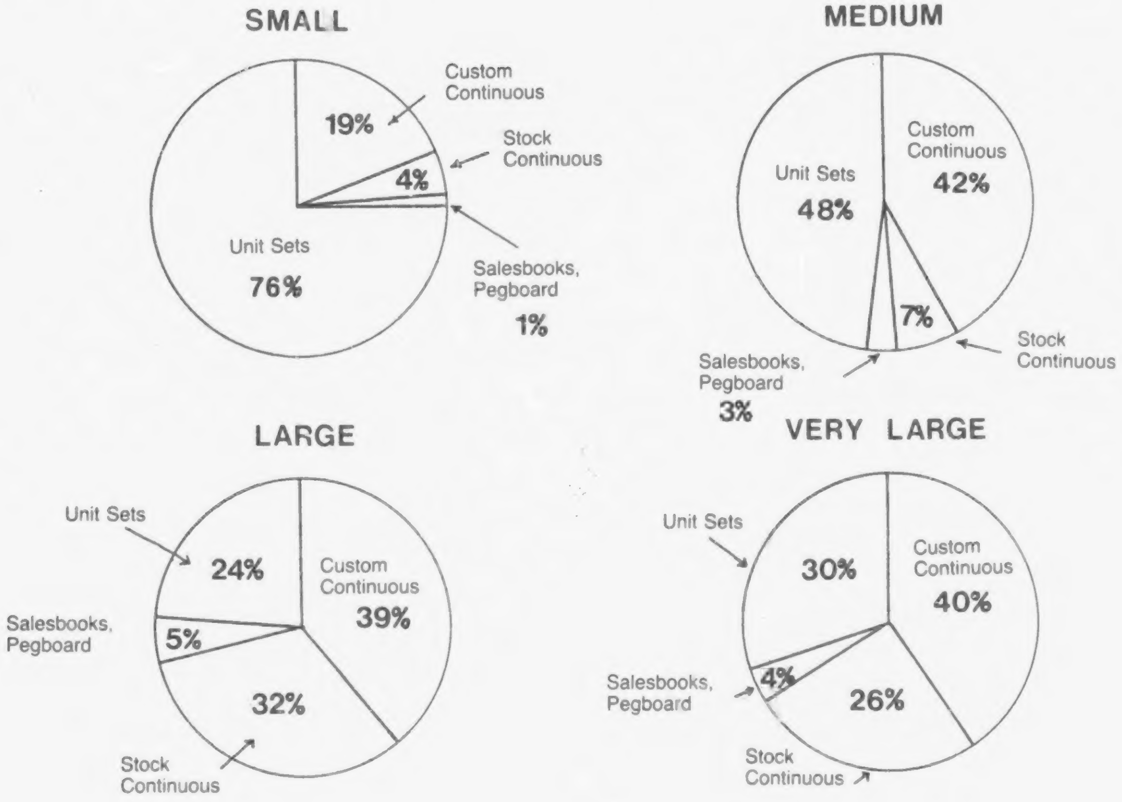
INDUSTRY PROFILE

U.S. Business Forms Manufacturers
(1981 Sales Data)

Annual Sales Volume (millions of $)	Number of Companies	Total Sales for Group (millions of $)	Percentage of Industry Sales
$200 +	3	1,701.2	37.0%
$50-200	15	1,410.7	30.6%
$20-50	18	483.1	10.5%
$10-20	16	239.9	5.2%
$3-10	88	456.7	9.9%
$1-3	89	159.1	3.5%
Less than $1	381	152.4	3.3%
TOTAL	610	4,603.1	100.0%

1981 PRODUCT MIX

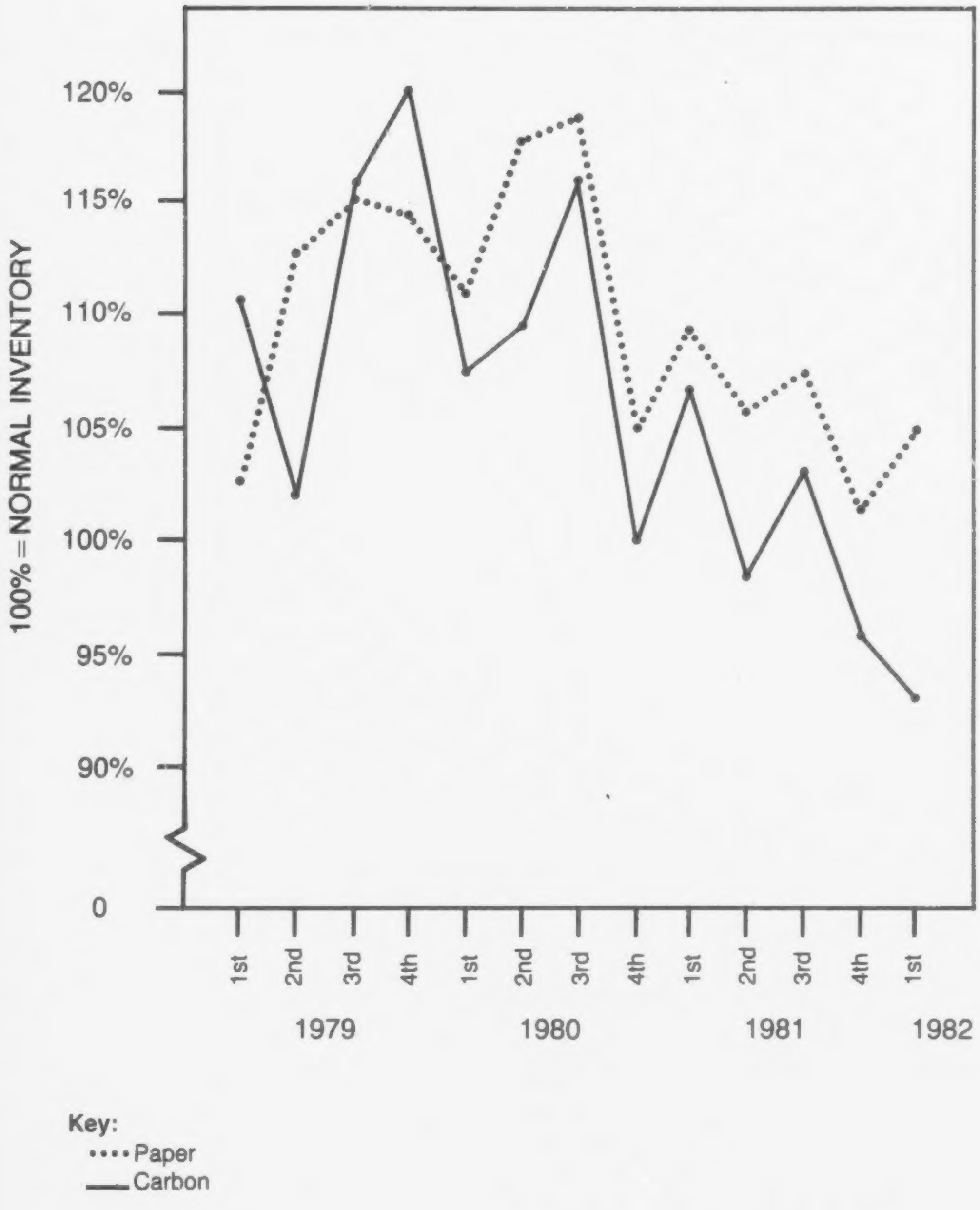
By Company Size



Here we see how a firm's place within the industry profile can dramatically affect its likely product mix.

QUARTERLY INVENTORIES

As A Percentage Of Normal

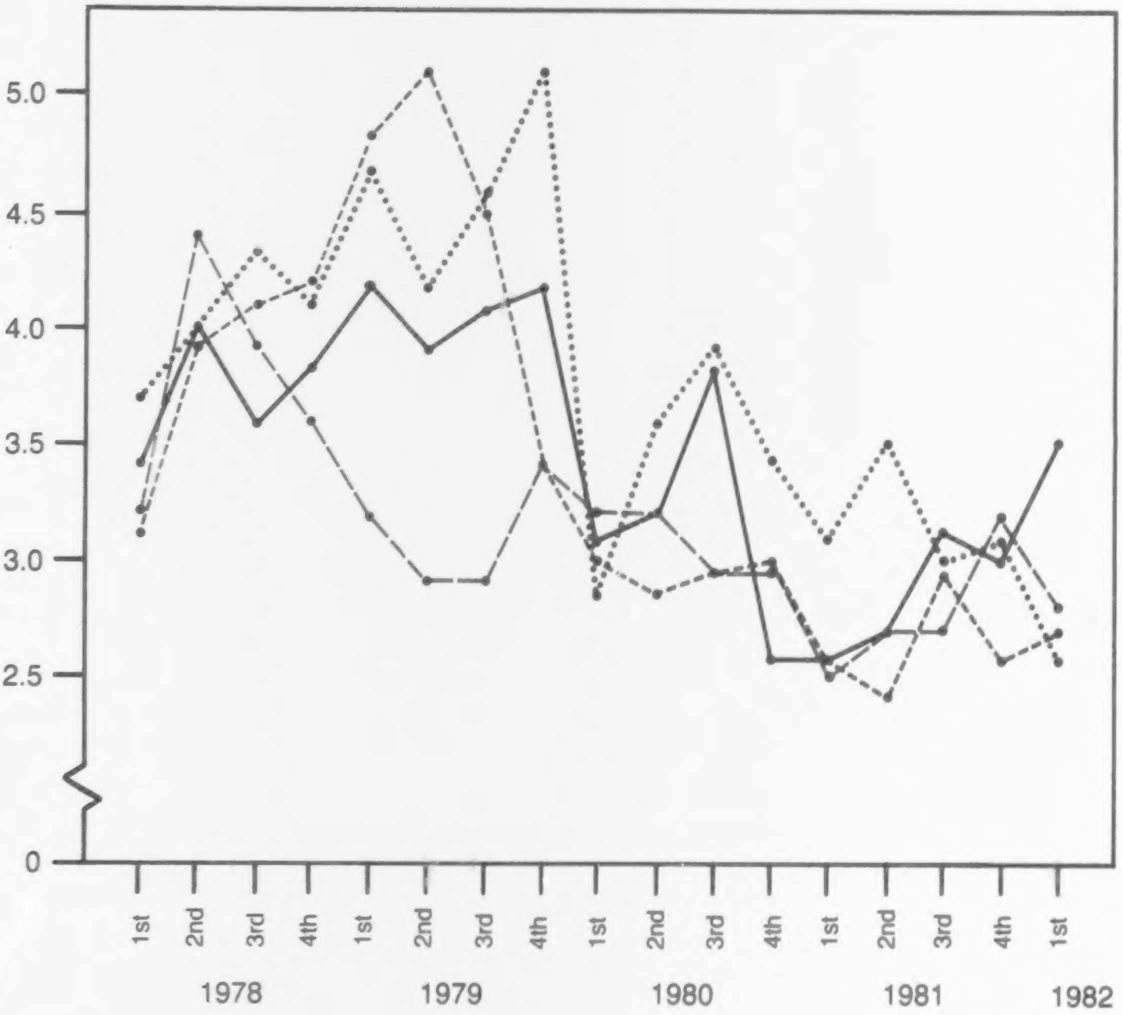


Source: IBFI

Even in the best managed firms, effective inventories can creep up in times of soft sales. As the market continues to weaken and price pressures become savage, inventory can be drastically trimmed since it is often the simplest and fastest area for potential cost control. Both these effects are illustrated in this graph.

QUARTERLY BACKLOG IN WEEKS

At Actual Utilization Rate



Key:

- - - - - - $0-3 Million/Year
- • • • • • • $3-8 Million/Year
- —— $8-15 Million/Year
- — — $15+ Million/Year

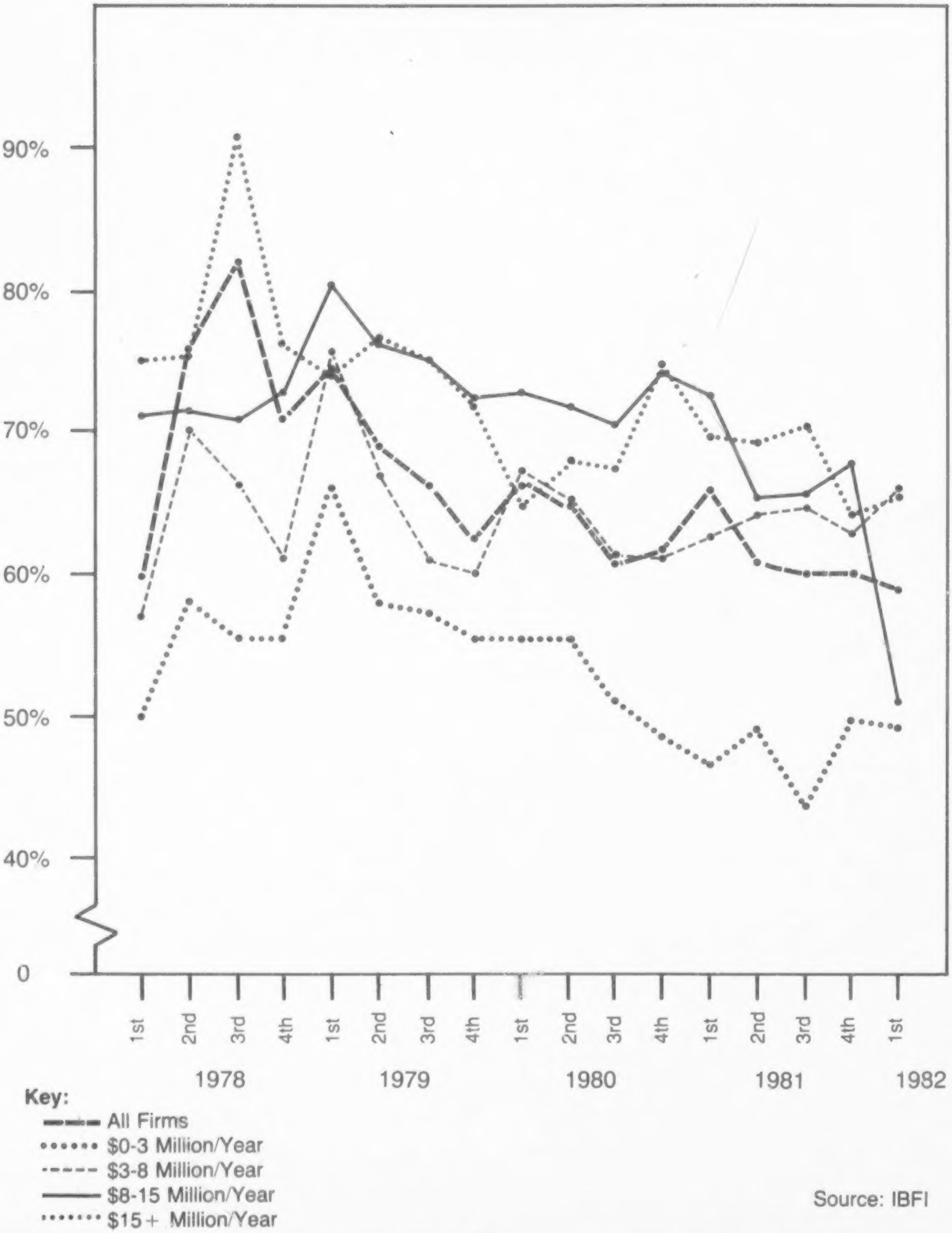
Source: IBFI

Backlogs, meanwhile, have continued to slide. However, reduced working hours, voluntary downtime and other creative scheduling techniques have stabilized backlogs even though the market itself has not yet turned the corner.

The tricks that can be used to maintain reasonable backlogs cannot, however, disguise serious capacity utilization problems. Utilization rates have been dropping steadily since 1978 and the bottom is only just being reached.

QUARTERLY CAPACITY UTILIZATION

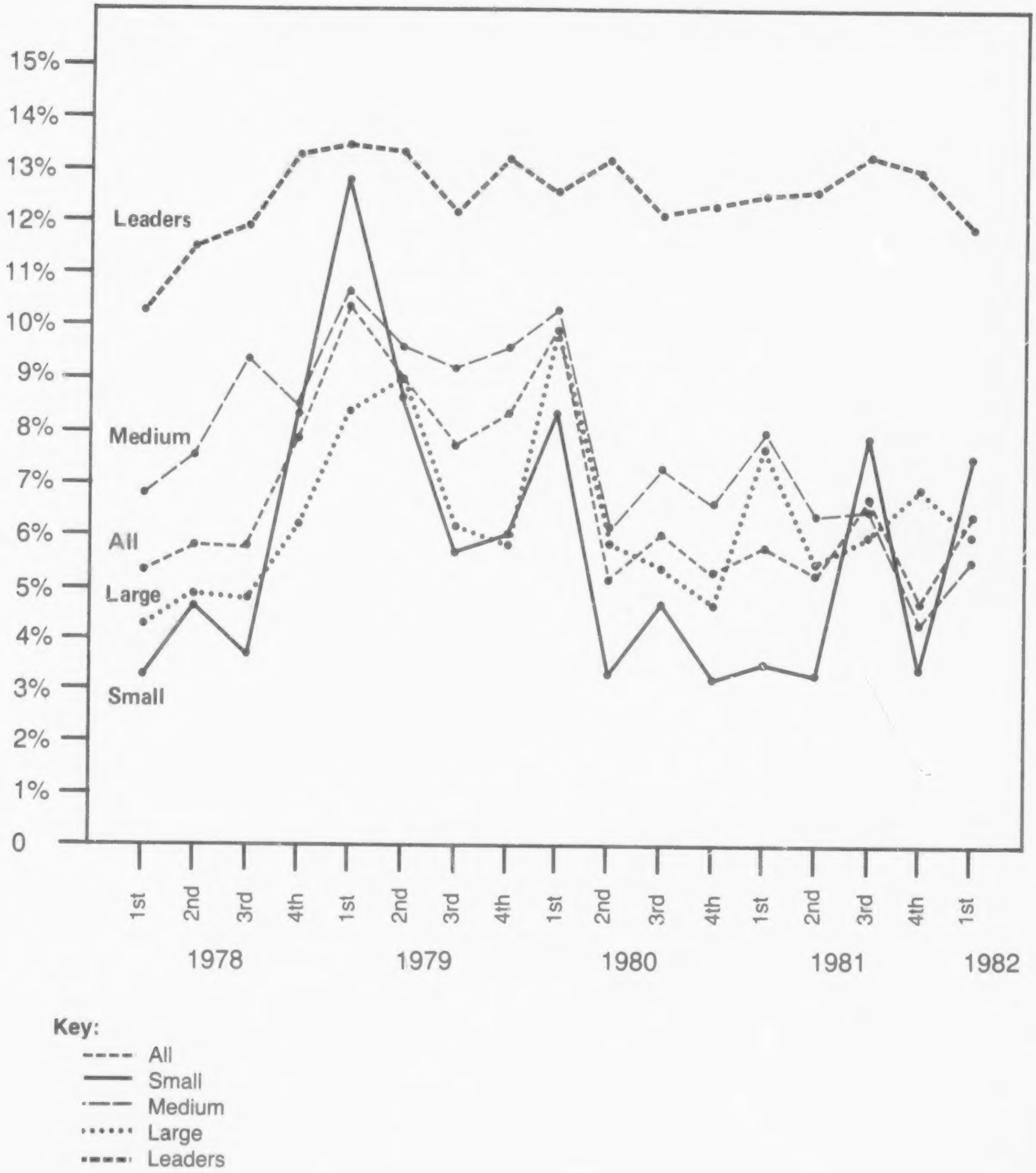
At Standard Capacity
100% = 120 hours/week



Source: IBFI

QUARTERLY PROFITS

Pre-Tax Net Profits As A Percentage of Sales



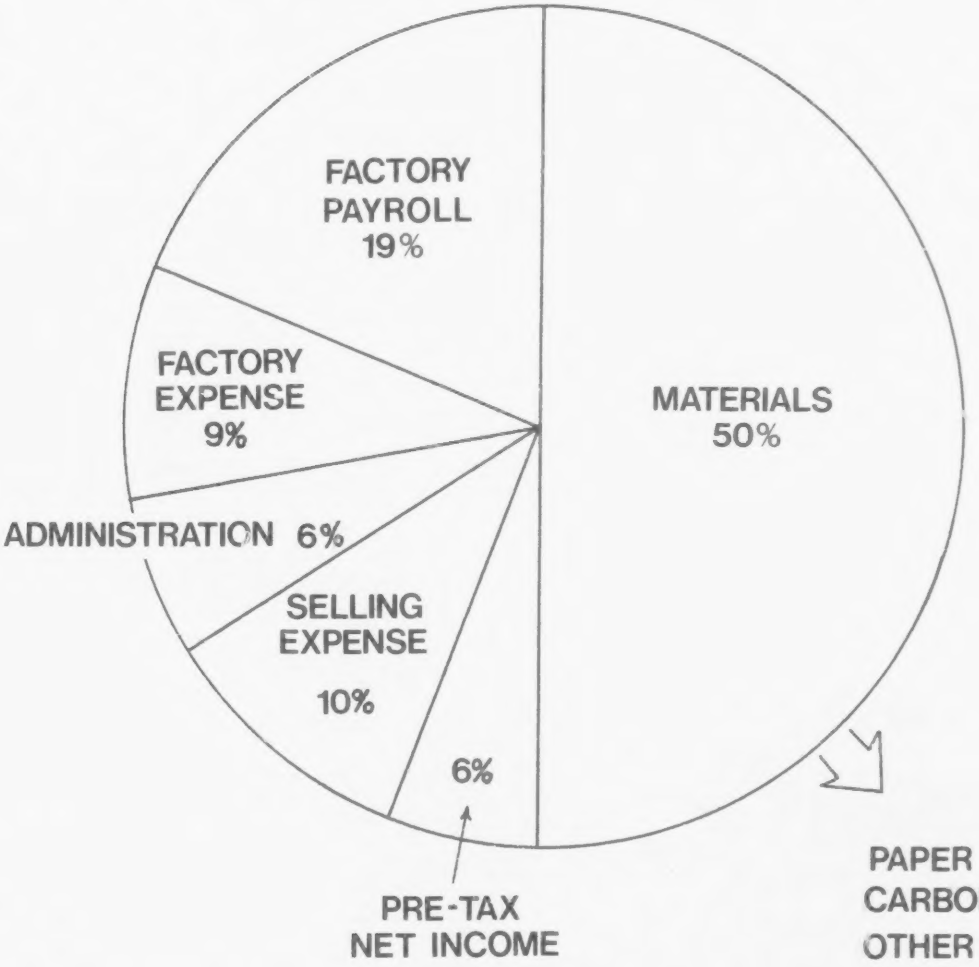
Source: IBFI

The impact upon profits is all too apparent.

U.S. FORMS MANUFACTURING

1981 OPERATING RATIOS

(Industry Averages)



PAPER	39%
CARBON	6%
OTHER	5%
	50%

Here we see the falling profits, increased materials ratios and increased overhead ratios that are sadly typical of recessionary times.

The IBFI Forecast

The IBFI forecast shows a modest improvement in 1982, almost all of which will take place in the second half of the year. Unit sets will experience little if any real growth until 1983. Continuous custom and stock products will share the total real growth in the continuous forms area more evenly than in recent years.

Looking further down the road, this forecast is fairly optimistic. Much of this optimism is carefully documented in the following pages and is derived from projected growth in the computer industry. The economic assumptions upon which much of the forms forecast is ultimately based are inevitably less objective. It seems clear to most observers that a tremendous amount of pent-up demand has built up within many sectors of the economy, housing being the most notable example. If, as this forecast assumes, the federal government pursues less contradictory fiscal and monetary policies in the next few years, this recession may have done a great deal toward establishing the fundamentals for the sort of sustained economic growth that eluded the US during the Seventies.

IBFI FORECAST BY PRODUCT AND QUARTERS 1982-1983

(In Millions of 1981 Dollars)

1982

	1st	2nd	3rd	4th	TOTAL
Custom Continuous	450.2	470.1	485.9	499.9	1,906.1
Stock Continuous	307.8	299.8	318.3	349.6	1,275.5
Unit Sets	313.2	364.9	374.3	391.7	1,444.1
Salesbooks	45.6	39.8	54.8	39.8	180.0
TOTAL	1,116.8	1,174.6	1,233.3	1,281.0	4,805.7

1983

	1st	2nd	3rd	4th	TOTAL
Custom Continuous	483.4	507.2	492.7	546.7	2,030.0
Stock Continuous	328.9	362.0	336.7	375.5	1,403.1
Unit Sets	345.9	398.0	379.6	407.2	1,530.7
Salesbooks	47.5	41.8	57.3	40.9	187.5
TOTAL	1,205.7	1,309.0	1,266.3	1,370.3	5,151.3

IBFI ECONOMIC FORECAST

	1981	1982	1983	1984	1985	1986	1987
Real GNP	+2%	−1%	+3.5%	+3%	+4%	+2%	+1%
Inflation	9.5%	5.5	6%	5%	7.5%	6%	5%
Interest Rates	14%	13%	11%	10-12%	→		

1982 GNP By Quarter

I	−3%
II	−0.5%
III	+3.5%
IV	+4.6%

IBFI FORECAST

U.S. Forms Sales
(Millions of 1981 Dollars)

	1981	1982	1983	1984	1985	1986
Continuous Custom	1,823.7	1,906.1	2,030.0	2,125.0	2,323.1	2,381.2
Continuous Stock	1,186.5	1,275.5	1,403.1	1,523.7	1,729.9	1,823.1
Unit Sets	1,417.2	1,444.1	1,530.7	1,601.7	1,720.2	1,734.6
Salesbooks, Pegboard	175.7	180.0	187.5	195.0	200.0	207.5
TOTAL	4,603.1	4,805.7	5,151.3	5,445.4	5,973.2	6,146.4

The growth in demand for unit sets reflected in the forecast data will be due primarily to general economic growth. The net growth in demand for continuous products will be due primarily to new installations of small computers - small business, mini and desktop models.

Great care must be used in manipulating this data, however. It is easy - as well as vastly encouraging to forms manufacturers - to say that net new installations of eight million of these machines over the next five years will bring a corresponding growth in sales revenues. The picture is in fact much more complex. First of all, many desktops will not use significant quantities of forms even if they are equipped with printers. Secondly, much of the resulting forms demand will represent a shift in demand rather than genuine creation of new demand. It is for these reasons that IBFI's estimates are (a) more conservative than many others and (b) represent changing values of dollars of forms demand generated per new installation.

These tables summarize the major losses to new less-forms and anti-forms technologies.

PAGES PRODUCED BY NON-IMPACT PRINTERS

Year	3800 Population	Billion Pages	9700 Population	Billion Pages	Billion Pages, Other	Total Pages
1981	1,800	63	850	16	3	82
1982	2,100	75	1,100	21	3	99
1983	2,500	91	1,400	27	4	122
1984	2,950	109	1,750	34	4	147
1985	3,400	127	2,200	44	5	176
1986	3,600	137	2,400	48	6	191

TONNAGE PRODUCED BY NON-IMPACT PRINTERS

Year	By 3800s	By 9700s	By Other	Total	Of Which Displaced From Impact Printers
1981	283,500	80,750	15,150	379,400	320,000
1982	336.000	105,600	15,150	456,750	385,000
1983	406,250	135,800	20,000	562,050	475,000
1984	488,520	171,500	20,000	680,020	580,000
1985	572,220	217,800	24,000	814,020	695,000
1986	615,600	241,200	28,000	884,800	761,000

ANNUAL LOSS OF POTENTIAL SALES REVENUES

Resulting From 9700 Displacement, 3800 Lower Value Added, Other Technological Change

(In Millions of 1981 Dollars)

Year	From 9700	New COM Installations	All Other	Total	Forms Management	Grand Total
1981	40	18	175	233	125	358
1982	58	34	214	306	135	441
1983	83	49	265	397	140	537
1984	103	63	321	487	140	627
1985	150	75	384	609	145	754
1986	178	83	446	707	155	862

Here we see the major sources of new sales revenues for continuous forms.

NEW FORMS DEMAND FROM SMALLER COMPUTERS

(New Forms Value In Millions of 1981 Dollars)

DESKTOPS

Year	Field Population	Effective Forms-Using	Effective Net Increase	Annual New Forms Demand	Cumulative New Forms Demand
1981	1,146,000	145,080	62,000	$10	$ 10
1982	1,777,000	251,100	106,020	16	26
1983	2,605,000	407,340	156,240	23	49
1984	3,663,000	620,310	212,970	32	81
1985	4,987,000	943,950	323,640	49	130
1986	6,233,000	1,200,000	256,050	35	165

MINICOMPUTERS

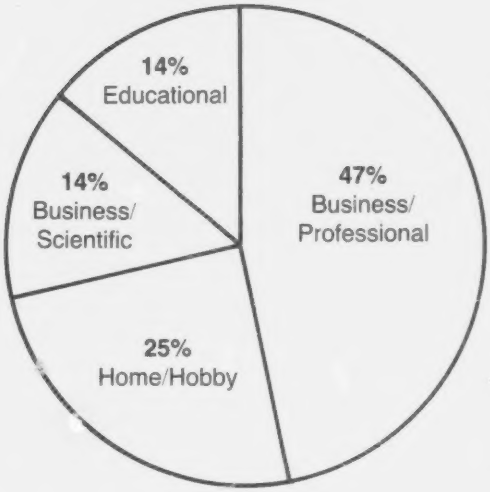
Year	Field Population	Net Increase	Annual New Forms Demand	Cumulative New Forms Demand
1981	508,800	89,100	$ 80	$ 80
1982	613,000	104,200	94	174
1983	737,100	124,100	112	286
1984	880,100	143,000	129	415
1985	1,045,600	165,500	149	564
1986	1,220,600	175,000	158	722

SMALL BUSINESS COMPUTERS

Year	Field Population	Net Increase	Annual New Forms Demand	Cumulative New Forms Demand
1981	181,800	42,000	$126	$ 126
1982	230,100	48,300	145	271
1983	285,400	55,300	166	437
1984	348,200	62,800	188	625
1985	425,500	77,300	232	857
1986	510,500	85,000	170	1,027

USE OF DESKTOP COMPUTERS

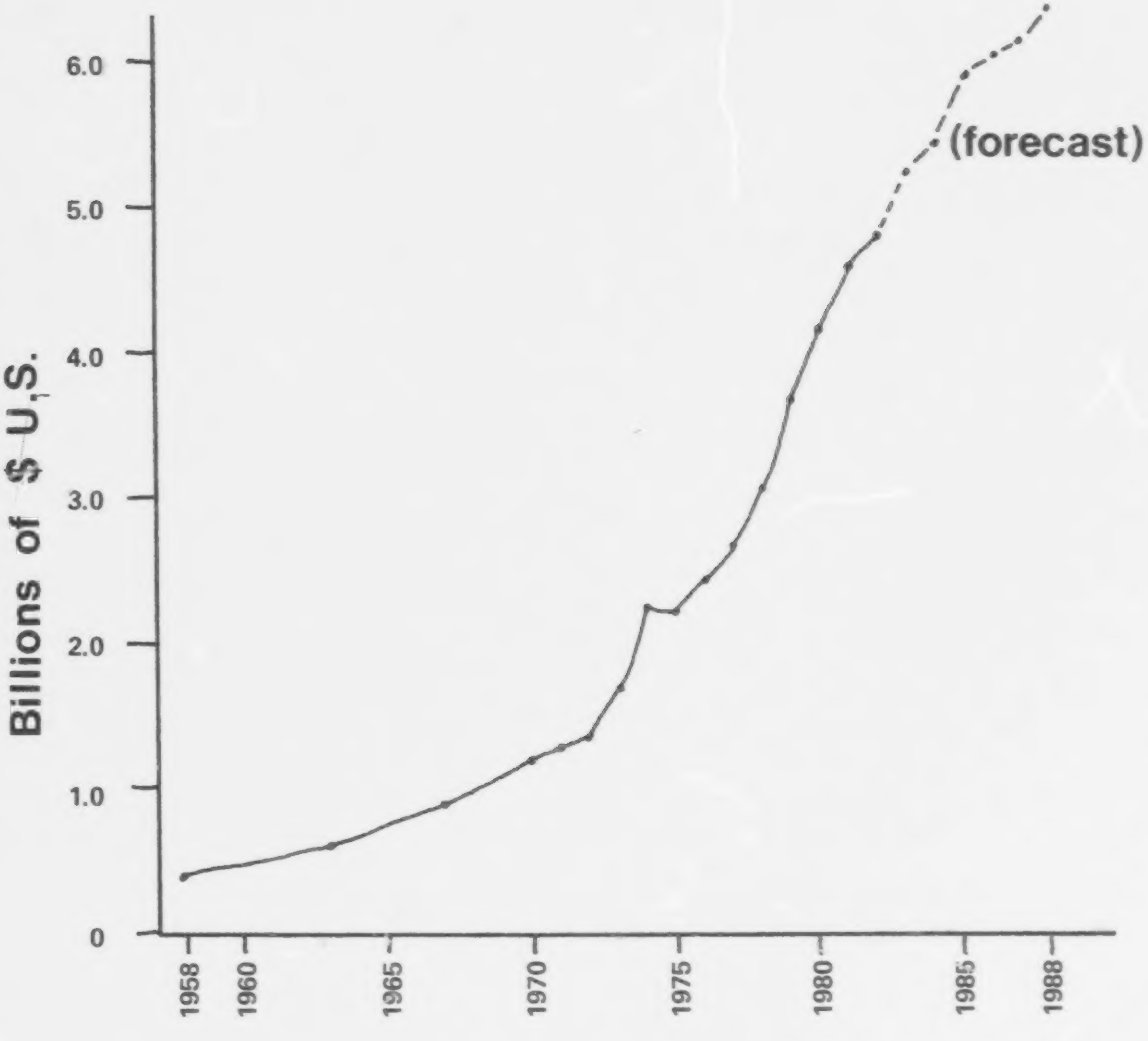
By Number of Units



One key to the positive contribution that desktop computers will make is the fact that few of them are truly being used as the "personal" computers they were designed to be.

U.S. FORMS INDUSTRY SALES

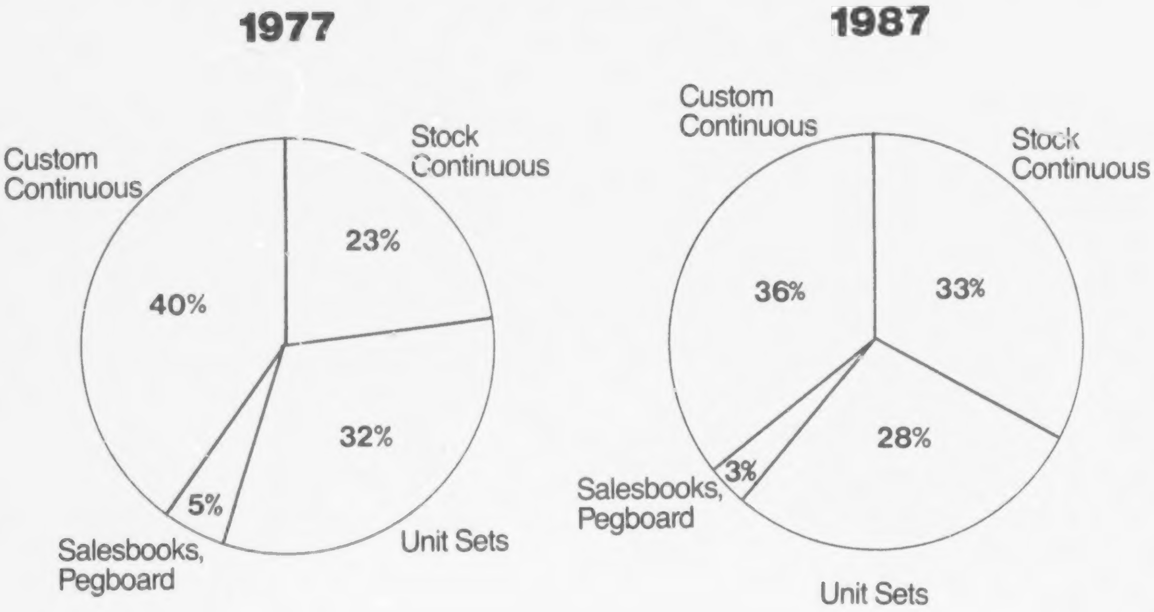
1958-1988



Here we see the aggregate growth represented by this forecast.

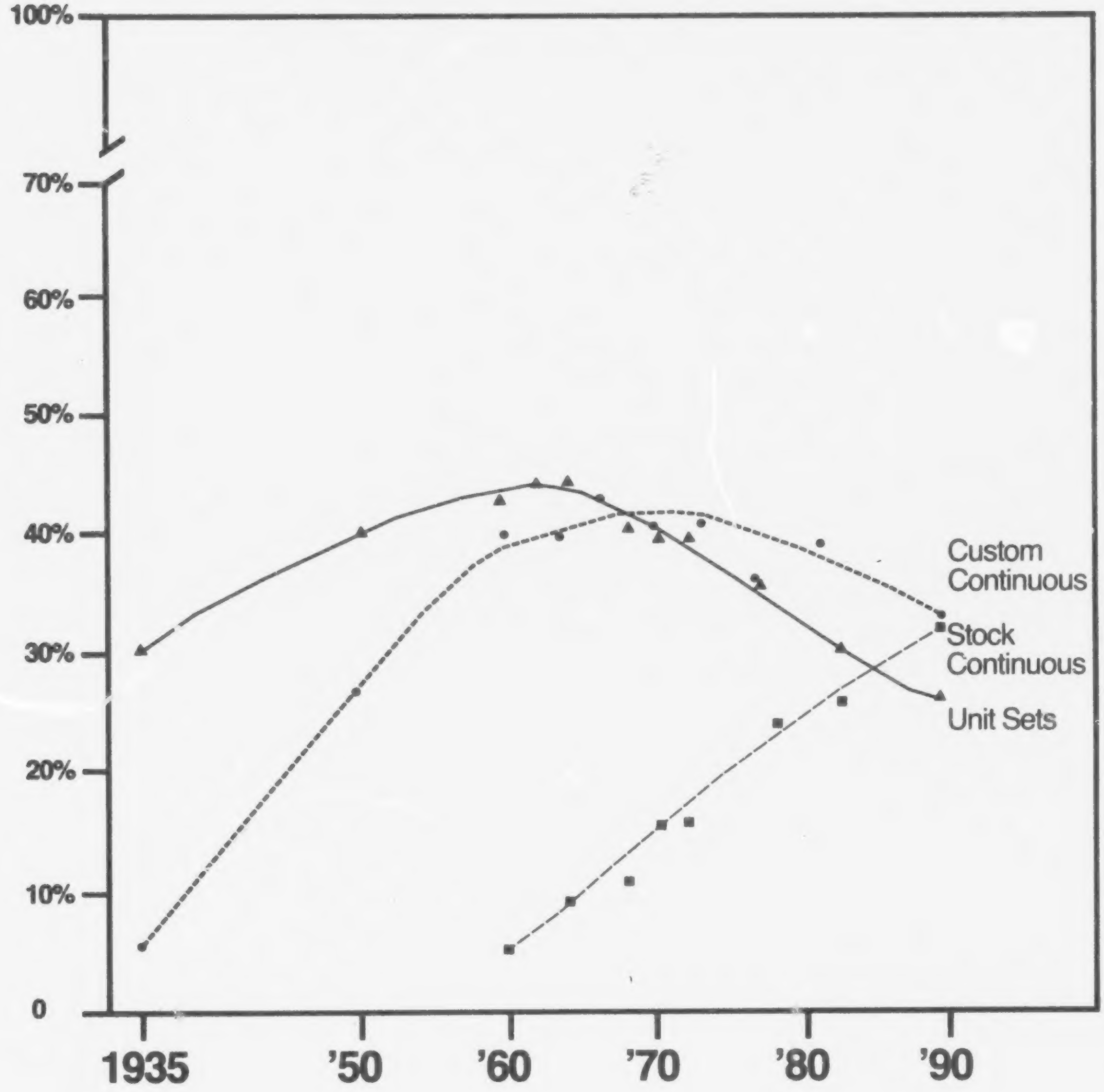
Of course, these technological trends will inevitably mean changes in product mix.

CHANGING PRODUCT MIX

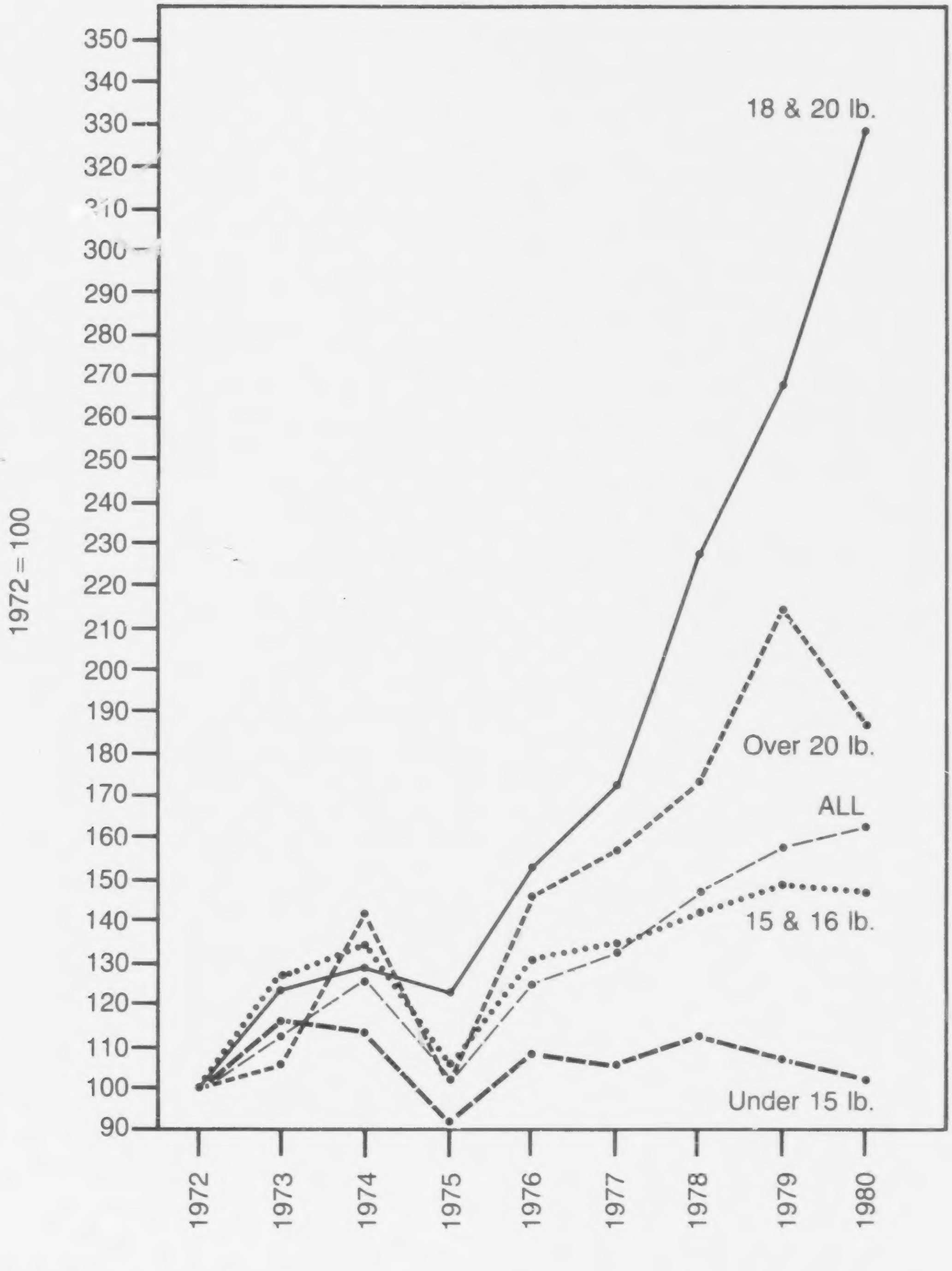


Here we see the implications of changing product mix in terms of product life cycles.

PRODUCT LIFE CYCLES
Product Shipments by Value
As a Percentage of Industry Shipments
(Measured at Current Dollars and Shipment Value)



GROWTH IN MILL SHIPMENTS OF FORMS BOND BY BASIS WEIGHT

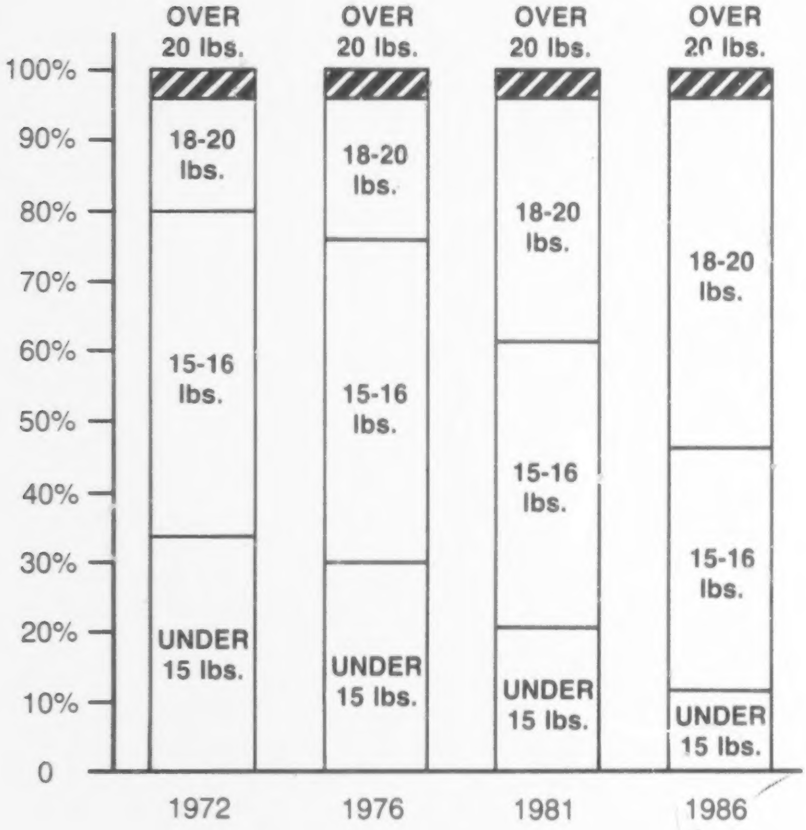


Another technology-driven trend is the gradual increase in basis weights. This increase is due to the greater amount of one-part work as well as slower and cheaper printers.

FORMS BOND

Changing Basis Weights

TOTAL FORMS PAPER TONNAGE



Here we look at the ultimate impact of differing growth rates upon percentage shares of the various paper grades.

Appendix
Selected Historical Industry Statistics

APPENDIX A.

Sales Data, Manifold Business Forms

(Millions of Dollars at Shipment Values)

	Unit Sets	Custom Continuous	Stock Continuous	Sales And Other Books	TOTAL
1958	159.6	150.4	18.8	45.2	374.0
1963	265.5	239.4	53.9	39.6	598.4
1967	361.7	391.9	98.0	44.2	895.8
1970	468.4	493.4	185.0	52.3	1,199.1
1971	486.4	518.9	190.0	47.0	1,242.3
1972	547.3	578.2	204.9	51.5	1,381.9
1973	630.2	733.7	282.1	59.8	1,705.8
1974	776.2	966.1	432.2	78.8	2,253.3
1975	781.6	944.9	413.7	78.3	2,218.5
1976	849.1	970.3	521.1	84.8	2,425.3
1977	958.1	981.1	633.9	129.5	2,702.6
1978	1,065.1	1,194.8	680.3	137.9	3,078.1
1979	1,248.7	1,466.9	891.4	154.2	3,761.2
1980	1,323.1	1,657.9	1,031.7	174.1	4,186.8

APPENDIX B.

Selected Data From Census Years

(Millions of Dollars at Shipment Values)

	Total Forms Manufactured	Of Which Manufactured By Forms Industry	Of Which Made By Other Industries	Non-Forms Made By Forms Industry	Total Industry Shipments
1958	374.0	357.0	17.0	35.3	392.3
1963	598.4	545.0	53.4	93.0	638.0
1967	895.8	809.2	86.6	123.1	932.3
1972	1,381.9	1,267.9	114.0	161.8	1,429.7
1977	2,702.6	2,559.4	143.2	334.6	2,894.0

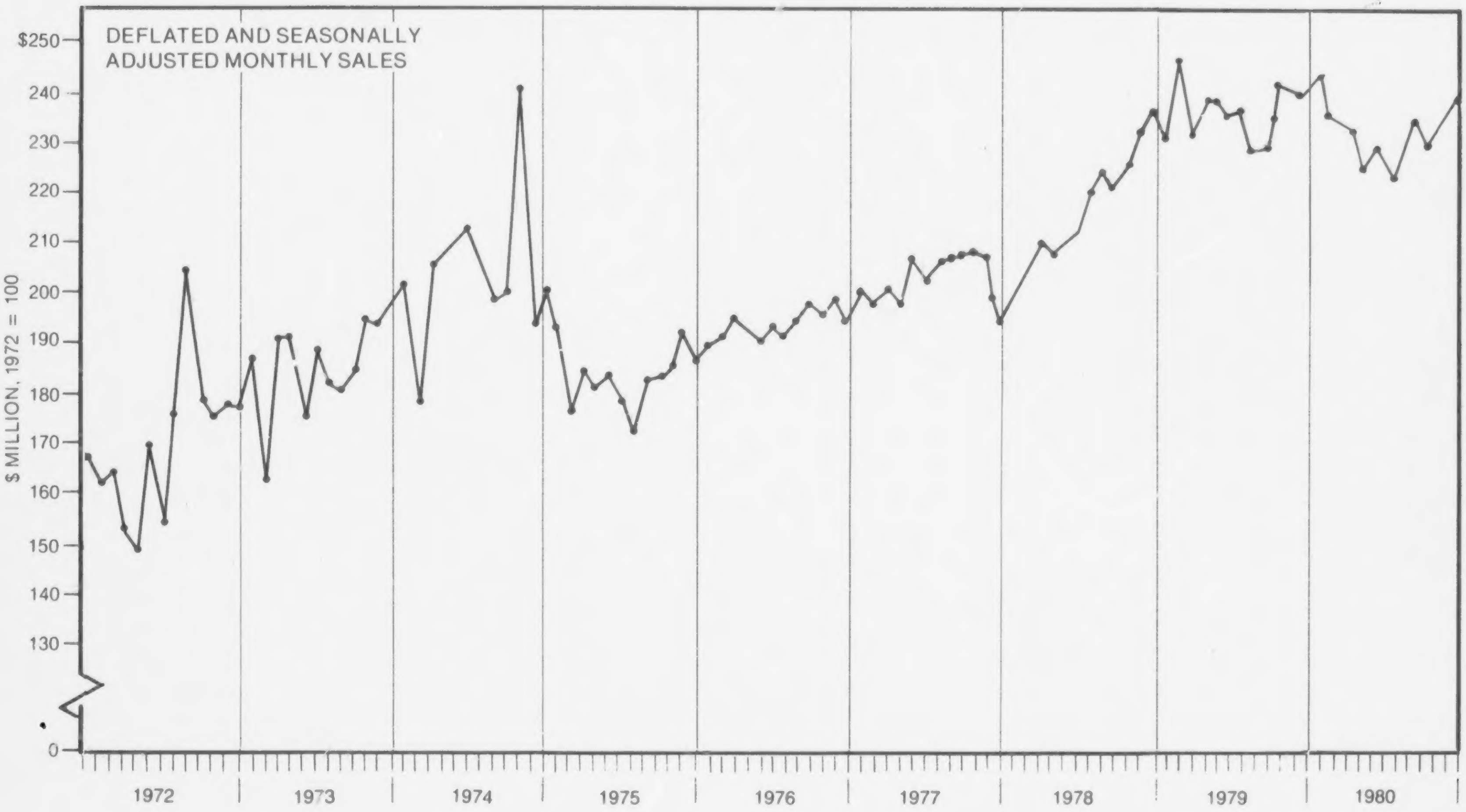
APPENDIX C.

Growth of Forms Industry Employment

Source: US Census of Manufactures

	Total Number of Companies	Number of Plants	Plants With 20 or More Employees	Total Number of Employees
1958	*	*	168	23.5
1963	439	502	250	28.8
1967	454	542	295	34.6
1972	533	667	376	38.5
1977	604	795	477	45.3

APPENDIX D.



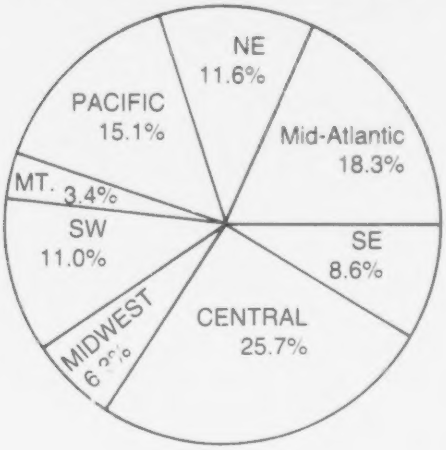
SOURCE: IBFI

APPENDIX E.

The Geographic Structure of The US Forms Industry

REGIONAL MANUFACTURE OF FORMS

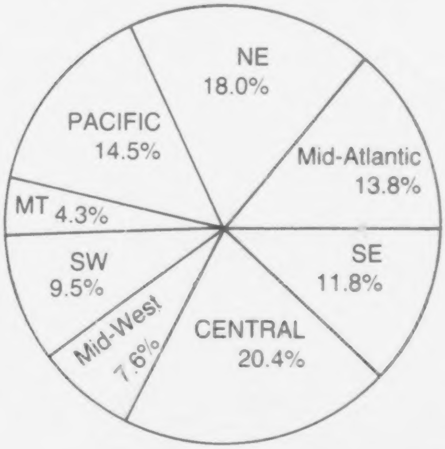
(By Current Dollar Shipment Value)



Source: IBFI

REGIONAL CONSUMPTION OF FORMS

(By Current Dollar Shipment Value)



Source: IBFI

(1980 ESTIMATES)

GEOGRAPHIC BREAKDOWN OF FORMS MANUFACTURING

(Shipment Values, Millions of Current Dollars)

	TOTAL PLANTS	PLANTS WITH 20+ EMPLOYEES (Production)	TOTAL FORMS SHIPMENTS
NORTHEAST	**117**	**67**	**485.1**
New Hampshire	5	4	41.4
Vermont	3	3	58.1
Massachusetts	13	11	43.6
Rhode Island	5	5	12.6
Connecticut	17	11	99.2
New York	74	33	230.2
MIDATLANTIC	**119**	**73**	**766.2**
New Jersey	34	17	85.7
Pennsylvania	50	32	382.3
Maryland	15	9	129.2
Virginia	15	11	112.7
D.C. & Delaware	3	2	3.5
West Virginia	2	2	52.8
SOUTHEAST	**110**	**60**	**360.7**
North Carolina	28	16	66.9
South Carolina	5	2	34.2
Tennessee	15	7	17.9
Mississippi	3	-	11.6
Alabama	5	4	73.2
Georgia	30	17	98.1
Florida	24	14	58.8
CENTRAL	**167**	**101**	**1,076.3**
Kentucky	4	3	43.2
Ohio	36	21	339.1
Indiana	12	7	80.1
Illinois	61	40	354.8
Michigan	34	16	119.5
Wisconsin	20	14	139.6
MIDWEST	**70**	**45**	**260.5**
Kansas	14	10	66.7
Missouri	20	11	67.3
Nebraska	4	4	20.1
Iowa	14	11	72.9
Minnesota	15	9	31.7
North & South Dakota	3	-	1.8

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GEOGRAPHIC BREAKDOWN OF FORMS MANUFACTURING continued from page 37

	TOTAL PLANTS	PLANTS WITH 20+ EMPLOYEES (Production)	TOTAL FORMS SHIPMENTS
SOUTHWEST	**75**	**51**	**461.6**
Oklahoma	9	6	69.7
Arkansas	5	4	24.4
Louisana	11	8	30.8
Texas	50	33	336.7
MOUNTAIN	**29**	**12**	**142.4**
Arizona	13	4	24.2
Colorado	6	3	43.5
Utah	5	4	52.6
Montana, Idaho, Wyoming & New Mexico	5	1	22.1
PACIFIC	**132**	**77**	**634.0**
Washington	13	6	35.3
Oregon	15	9	81.2
California	101	62	512.9
Nevada &	2	-	4.6[1]
Hawaii	1		
TOTAL	**819**	**486**	**4,186.8**

[1] Shipments have been merged to avoid disclosing sales of individual plants.

GEOGRAPHIC BREAKDOWN OF PRODUCT SHIPMENTS

(Shipment Values, Millions of Current Dollars)

	UNIT SETS	CONTINUOUS CUSTOM	CONTINUOUS STOCK	SALESBOOKS AND OTHER
NORTHEAST	186.7	185.9	95.4	17.1
MIDATLANTIC	176.6	251.6	301.2	36.8
SOUTHEAST	150.7	177.0	20.1	12.9
CENTRAL	286.4	467.1	283.8	39.0
MIDWEST	119.3	113.4	18.0	9.8
SOUTHWEST	147.0	170.7	124.5	19.4
MOUNTAIN	80.5	58.6	3.1	0.2
PACIFIC	175.9	233.6	185.6	38.9
TOTAL	**1,323.1**	**1,657.9**	**1,031.7**	**174.1**

SOURCE: These estimates are derived from a combination of IBFI survey data, the U.S. Census of Manufactures, public reports and various private research reports.

CONTINUOUS FORMS DEMAND BY GEOGRAPHIC REGION AND INDUSTRIAL SECTOR

(Millions of 1980 Dollars at Shipment Values)

	NE:	MID-ATL:	SE:	CENT:	MID-WEST:	MT:	SW:	PACIFIC:	GRAND TOTAL:
Agriculture, Mining & Construction	5.5	7.8	7.2	9.2	4.5	4.3	9.9	8.1	56.5
Non-Durable Manufacturing	43.8	41.4	38.2	42.5	15.2	8.1	19.0	20.4	228.6
Durables Manufacturing	74.8	52.4	37.0	128.5	28.7	11.5	30.9	58.5	422.3
Transportation	15.6	12.2	10.8	17.3	8.0	4.3	10.4	12.8	91.4
Utilities	30.7	24.5	22.6	36.8	14.2	8.3	18.5	24.6	180.2
Wholesale Trade	22.6	14.9	15.3	24.9	12.2	5.5	15.1	18.6	129.1
Retail Trade	13.8	15.1	10.2	17.5	6.9	4.0	8.7	12.6	88.8
Financial Services	99.0	62.4	55.0	88.0	36.2	21.4	45.9	84.3	492.2
Service Industries	124.7	88.5	74.8	126.1	49.7	27.9	59.4	97.1	648.2
Government	54.6	53.8	46.8	61.0	27.8	19.9	36.0	52.4	352.3
TOTAL	485.1	373.0	317.9	551.8	203.4	115.2	253.8	389.4	2,689.6
UNIT SETS	239.8	182.8	155.3	267.8	101.2	56.6	125.5	194.1	1,323.1
SALESBOOKS, OTHER	29.8	23.8	22.0	35.7	13.7	7.2	18.0	23.9	174.1
TOTAL FOR REGION	754.7	579.6	495.2	855.3	318.3	179.0	397.3	607.4	4,186.8

SOURCE: IBFI

NOTE: The geographic regions used in these estimates were determined by careful study of regional economic data and transaction flows. They are:

NORTHEAST: New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Maine.

MIDATLANTIC: New Jersey, Pennsylvania, Maryland, Virginia, District of Columbia, Delaware, West Virginia.

SOUTHEAST: North Carolina, South Carolina, Tennessee, Mississippi, Alabama, Georgia, Florida.

CENTRAL: Kentucky, Ohio, Indiana, Illinois, Michigan, Wisconsin.

MIDWEST: Kansas, Missouri, Nebraska, Iowa, Minnesota, North Dakota, South Dakota.

SOUTHWEST: Oklahoma, Arkansas, Louisiana, Texas.

MOUNTAIN: Arizona, Colorado, Utah, Montana, Idaho, Wyoming, New Mexico.

PACIFIC: Washington, Oregon, California, Nevada, Hawaii, Alaska.

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